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RESEARCHES IN ANATOLIA—VOLUME III

THE ALISHAR HÜYÜK SEASON OF 1927

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Pottery Leg and Foot with Shoe, No. 3360. Front and Side Views. Actual Size

THE UNIVERSITY OF CHICAGO ORIENTAL INSTITUTE PUBLICATIONS VOLUME VII

RESEARCHES IN ANATOLIA-VOLUME III ·

THE ALISHAR HÜYÜK SEASON OF 1927

PART II

BY HANS HENNING VON DER OSTEN

AND

ERICH F. SCHMIDT

Field Directors of the Anatolian Expedition

WITH A CHAPTER BY EDWARD T. NEWELL



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PREFATORY NOTE

Part I of our report on the Oriental Institute's excavations at Alishar Hüyük in 1927 appeared in February, 1930.¹ Our delay in presenting Part II has not only made it possible to secure better reproductions of many objects retained in Anatolia but has enabled our discussion to benefit by the results obtained in our later seasons.

During 1927 the expedition was under the leadership of Dr. von der Osten. The actual excavation and registration were in Dr. Schmidt's charge.² To Dr. von der Osten are due chapters i–iv and vii in Part I and chapters ii, iii, and the stone, pottery, and metal sections of chapter v in Part II. Dr. Schmidt prepared chapters v, vi, viii, and ix in Part I and chapter i and the remainder of chapter v in Part II. The authors have enjoyed the co-operation of Professor W. M. Krogman, now of Western Reserve University, and of Edward T. Newell, president of the American Numismatic Society, New York City. The latter contributed chapter iv for Part II. The former is studying all the skulls available from the Alishar excavations of 1927–31 inclusive. In view of the enlarged scope of his report, it has been considered more appropriate to transfer it from the present "Publication" to the volumes covering 1928–29, which are now almost ready for press.

In this work the terms "Alishar I" to "Alishar VII" inclusive are used interchangeably with "Stratum I" etc. (the layers of material remains) and "Period I" etc. (the periods of time during which the corresponding strata were deposited). This is a more elaborate division than that employed in Part I, for our increasing knowledge has made more subdivisions necessary. Strata I and II are here numbered as in Part I. The former Stratum III is divided into Stratum III (pre-Empire), Stratum IV (Hittite Empire), and Stratum V (post-Empire). Stratum VI includes Hellenistic, Roman, and Byzantine remains; and Stratum VII covers the Seljuk and Osmanli phases of the mound's history.

During 1927 we catalogued and registered about 3,300 objects, the majority of which were pots or potsherds. Many of the other finds also were fragments.

¹ "Oriental Institute Publications," Vol. VI.

² For a more complete statement, see *ibid.*, chap. iv.

³[The excavations of 1930 and 1931 indicate that Period II was in general later than Period III, though the two were partially contemporaneous, and that bronze came into use in Period III, See Dr. von der Osten's Supplementary Note in OIC No. 11, pp. 156-59.—Editor.]

In that first season, however, we could not afford to overlook anything in our cataloguing, for practically nothing was then known of the archeology of Central Anatolia. The finds at Troy were all of little use for comparison, since surprisingly few of the small objects there found resemble our Alishar pieces. In spite of our stratigraphic studies, the 1927 season gave far too little basis for chronological arrangement of all the kinds of small objects.

All the important small objects have at least been enumerated here, though not all illustrated. Only typical specimens of the more common objects have been listed and pictured. In using the data on unillustrated objects, the reader may assume that with few exceptions the pieces found in plots bearing arabic numbers are not older than Period V. Stratum IV was reached in that territory at only one point.² The terrace plots, numbered with roman numerals, provided most of our Period I and Period II material. There the Period II level was reached usually at a depth of from 1.50 to 2 meters, but sometimes very little below the surface. The dates given in our text are based on the associations in which our objects were found.

The object numbers used in this report are our original field numbers. Where measurements are given, they are in meters. The dimensions of individual objects are rarely given in our text. In most cases they will be clear from the scales given with the illustrations. In only a few instances, where no scale is given, photographs on different scales have been combined.

H. H. VON DER OSTEN ERICH F. SCHMIDT

¹ Cf. especially OIP VI, chap. viii.

² In Plot 37; see OIP VI 110.

ABBREVIATIONS

AJSL	American	Journal of	Semitic L	anguages	and Litera	tures (Ch	icago etc.,	1884—)
OIC	Chicago.	University.	Oriental	Institute.	"Oriental	Institute	Communi	cations.
OIP	Chicago.	University.	Oriental	Institute.	"Oriental	Institute	Publicatio	ns."

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DISPOSAL OF THE DEAD

It took much painstaking work to gather the information concerning burial methods and to take out the skeletal remains of former inhabitants of the site for further examination by a physical anthropologist. Only a few of the skeletons were fairly well preserved. Most of them were crushed and the skulls partly flattened by the weight of rocks, big potsherds, and soil above them. In some cases there was simply a heap of soil intermingled with bone particles and with some fragmentary medullary bones protruding. Like paleontological specimens, they had to be "chipped out." Even then, some skeletons proved of little value for the physical anthropologist. However, many of the skulls and other bones could be restored. Several long bones and others were complete.

In addition to the poor preservation of the osseous remains, one more fact was regrettable. There were hardly any mortuary gifts with the skeletons. In only one case was a skeleton accompanied by mortuary pottery. Apart from the fact that in other regions the mortuary equipment often represents the most valuable part of the material collected, its scientific importance is still greater, since it gives information as to the period during which its owner lived. This applies particularly to the pottery in regions where written records are absent or scarce. We succeeded, however, in some cases, by careful consideration of the burial, the depth of the stratum in which it was found, and the objects uncovered around and above it, in determining the period when it had taken place.

Not all the skeletons found represent burials. There were some persons the position of whose remains indicated that they had been killed or had perished by an accident (e.g., Plot XXV, X_1 , and Plot XXVIII, X_{2-4}). It should be emphasized that we did not search for burial grounds but that all the skeletons appeared during the general excavations. They were found at various depths. One skeleton (Plot XXV, X_1) was hardly covered by the surface earth, whereas our supposedly most ancient skeleton (Plot X Strat. Annex, X_5) was deposited in the original soil on which the mound had accumulated in the course of millennia.

The following descriptions of individual burials are grouped in numerical order according to the plots in which they were found.

PLOT IX, SKELETON X₁ (No. 3200)

At a depth of 2 meters from the surface and 1 meter below the edge of Pit 10, a thick-walled, crude earthenware vessel was uncovered. It lay on its side, with flat stone slabs leaning against the broken orifice (Fig. 1). It was situated



Fig. 1.—Plot IX. Burial Urn of X₁ from

in the wall of the pit and not in the pit itself. The vessel proved to be approximately 1 meter high, .75 wide at its greatest diameter, and .55 wide at its orifice. After it had been cleared and some of the large sherds that had fallen into it had been removed, a badly crushed skull could be seen. The facial part was pressed aside and severed from the occipital part. The positions of the limbs are shown in Figure 2. The skeleton, that of a female(?) adult, was lying on its back in a general east-west direction, but bent slightly to the left side. The skull was west, originally turned somewhat to face north.

The maxillae and mandible were in large part complete, as was part of the skull base. The vertebrae were rather well preserved, also one femur, one humerus, and one scapula.

The only object found with the body was a copper or bronze pin—probably a robe pin—lying on the right side of the chest.

A red-slipped sherd of Period I¹ was found within the vessel, and more sherds of this type were uncovered around and above it—but also considerably below it. Two Period III vessels found .50 above the urn may also serve as clues. One (No. 3104)² was decorated with dark brown color on a grayish white

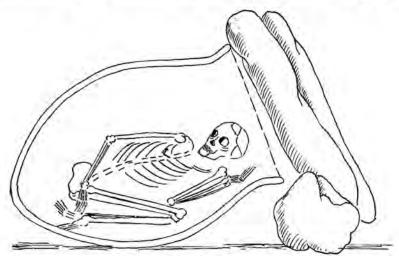


Fig. 2.—Plot 1X. Schematic Reconstruction of Burial X_1 . Scale, 1:15

slip and, like the other (No. 3107), supplied with one high handle. A third cup (No. 3105), red-slipped, was found on approximately the same level as the other two. The probability, then, is that this burial belongs to the period of our red-slipped pottery—Period I.

PLOT IX, SKELETON X2-(No. 3201)

In Pit 9, at a depth of .80 from its upper edge and 1.90 from the surface, a few fragments of a skeleton were found, principally a broken mandible and finger bones. The position of the skeleton could not be determined, but the skull seems to have pointed west.

¹ But cf. OIC No. 11, p. 105, where the difficulty of distinguishing mere sherds of Period I from some of those of Period III is explained.

² See OIP VI 260.

PLOT IX, SKELETON X3 (No. 3202)

Buried in a big jar in the same manner as X_1 , this skeleton was discovered at a depth of 3.60 from the surface. The jar lay on its side. Its orifice, pointing south, was closed by a single stone slab, now cracked in the middle, measuring 1 meter in length, .70 in height, and .20 in thickness. The wall of Pit 13 stood



Fig. 3.—Plot IX. Skeleton X₃

partly on top of the orifice and the covering slab. Both the bottom and that part of the vessel turned toward the surface were entirely crushed. Large and small fragments lying directly on the skeleton had broken most of the bones with their sharp edges. The jar was approximately 1.10 long, its width .80, and its thickness .025.

The skeleton, that of a male adult, was lying on its left side; the pelvis, however, was in a dorsal position (Fig. 3). The legs were in a squatting position. The skull pointed toward the orifice. The right arm was flexed, the hand in front of the chest. The left hand was in front of the face and curved toward it. Most of the bones were broken.

At the center of the left humerus in front of the chest there was a bronze¹ pin .10 long with rounded head. It showed blue and green patina. Compare the pin found with X_1 (p. 3).

Period I.

PLOT X STRATIGRAPHIC ANNEX STRATUM VII, NE. QUADRANT, SKELETON X₁

This burial, found at a depth of 1.15,2 was that of a child (infans I?),3 the epiphyses of the long bones not articulated and the sutures of the skull hardly



FIG. 4.—PLOT X STRAT. ANNEX. CRANIUM X1

or not at all closed at many places. The skull was cracked in several spots; the occipital bone was missing, and the temporal bone was hanging loosely (Fig. 4). The other bones were relatively well preserved, though the vertebrae crumbled badly when taken out. The body was lying on the left side, with the left arm flexed and the hand in front of the face. The legs were flexed. The right arm was extended with the hand lying between the knees. The vertebral column lay 18° west of south, with the skull at the south and inclined toward the west.

¹ See OIC No. 11, p. 62.

² OIP VI 219 should be corrected.

³ Relative ages are designated as "infans" (I and II), "juvenile," "adult," and "mature." For further age terminology see Rudolf Martin, *Lehrbuch der Anthropologie*² (1928) II 243–44.

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A crude broken vessel, grayish black and featureless, was situated .20 WSW. of the skull.

Roman period?

PLOT X STRATIGRAPHIC ANNEX STRATUM IX, NE. QUADRANT, SKELETON X₂ (No. 3210)

The second skeleton found here was that of a small child (infans I). It was utterly decayed, and only fragments could be recovered. Its general direction was east-west with the skull originally toward the east.

Roman period?



Fig. 5.—Plot X Strat. Annex. Burial X4 with One Brick beside It

PLOT X STRATIGRAPHIC ANNEX STRATUM XII, SW. QUADRANT, SKELETON X_3 (No. 3211)

Outside and .50 below the top of a circular stone pit (No. 4) and 2 meters¹ below the surface a few remains of a child's skeleton were found. It could not be determined whether this was a burial. The occipital bone lay .50 away from the other bones. Other remains of the hopelessly crushed skull were lying

6

¹ OIP VI 219 should be corrected.

on the femur with some other bone fragments. It is quite possible that the skeleton had been disturbed by the building of the pit.

Period II?

PLOT X STRATIGRAPHIC ANNEX STRATUM XV, NE. QUADRANT, SKELETON X4

At a depth of 2.60¹ the skeleton of a child was found half buried under a big cooking-pot and partly broken fire bricks (Fig. 5). The latter were seemingly cubical, .20 in each dimension, with a hole in the center of one side and a pair of grooves radiating from it toward each corner. No special arrangement of these bricks could be seen. They were piled one on top of another, three or four in all.

When the bricks and the pot fragments were removed, it was found that they had badly crushed the skeleton. The latter was lying on its right side. The skull was south, facing east. The legs were closely flexed, the left arm bent to a right angle, the right arm extended with the hand somewhat above the right pelvis. The direction of the vertebral column was 15° east of south from the last lumbar vertebra to the atlas.

We may probably consider as mortuary gifts the big coarse cooking-vessel lying on top of the skeleton; one white tubular bead near the left hand and chest; and one perforated animal tooth, probably a pendant, found at the neck below the mandible.

Period I, or possibly Period II.

PLOT X STRATIGRAPHIC ANNEX

STRATA XXX-XXXI, NE. QUADRANT, SKELETON X5 (No. 3212)

In the lowest layer of the stratigraphic trench, at a depth of 5.70, X_5 was found imbedded in the ashes of refuse pit No. 16 (Figs. 6 and 7). This pit was one of four dug into the original soil beneath the $h\ddot{u}y\ddot{u}k$. The original soil was whitish gray and looked like disintegrated limestone. Part of the pit filling consisted of such soil in addition to ashes. The pit was situated directly below the floor of a room inclosed by whitewashed kerpich walls. The skeleton itself was .50 beneath the floor. Possibly the deceased, a male adult, was interred by the occupants of this room; but the whole series of four pits seems rather to be older than the room. The head was half buried below a rectangular offset made of whitewashed kerpich reaching from the west wall into the interior of the room and from .40 below the wall edge to the floor. The skeleton was lying on its left side, both arms and legs closely flexed. The vertebral column was curved; its

¹ OIP VI 219 should be corrected.

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Fig. 6.—Plot X Strat. Annex. Full Height of North Wall. Burial X_5 Seen in Center at Bottom

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general direction, measured from sacrum to atlas, was 62° west of south. The skull was southwest, facing northwest. The teeth were all present. The left hand, near the knees, was curved somewhat toward the body. The right hand was in front of the face, with the distal phalanges touching the frontal bone. Most of the bones, and particularly the skull, were broken and brittle. No objects accompanied the body.

Early Period I.



Fig. 7.—Plot X Strat. Annex. Skeleton X_{δ} from Northeast

PLOT X STRATIGRAPHIC ANNEX SKELETON X₆ (No. 3224)

After the stratigraphic work in this plot had been completed and the area was being finally cleaned, a large stone slab resting on its long edge near the south wall of the plot attracted attention. When the stones which were piled up around it had been removed, the edge of a rectangular stone cist (No. 20) appeared 2.20 below the south edge of the plot (Fig. 8). The large slab formed the east end of the cist, and was balanced by a corresponding single slab at the west. The south wall was built of two similar slabs averaging .55 in height.

The north wall likewise consisted of two slabs set right below the southern edges of a row of flat stones belonging to Wall 6.1 Their alignment would sug-



Fig. 8.—Plot X Strat. Annex. Stone Cist Grave of X₆ from East

gest that the cist and this wall were contemporary. The southwest corner of the cist extended under a stone-walled circular pit (No. 4). The cist was en
1 See OIP VI 217.

tirely filled with small flat stones averaging .10-.20 in size set like a pavement in several layers on top of a skeleton.

When the stone filling was removed, a mandible appeared in the southeast corner and a broken calva¹ at the center of the north wall. Contrary to the first assumption, there was only one skeleton, that of a male adult, in this burial



FIG. 9.—PLOT X STRAT. ANNEX. BURIAL X6 IN STONE CIST FROM WEST

cist (Fig. 9). But its remains were oddly placed. The mandible lay with a humerus; a lumbar vertebra and the pelvis were situated near the skull. One femur adjoined the pelvis, indeed, but with its distal epiphysis. At its proximal end the sacrum was found on top of the clavicles, touching the large slab which bordered the cist on the east. There are only two possible explanations for this

 $^{^1}$ The top of the skull, without its base. For this and similar technical terms see R. Martin, op. cit., p. 581.

abnormal position. Either we have here a secondary burial, or the burial had been disturbed. The former explanation is the more probable, since in the latter case at least some bones would have retained normal positions in relation to one another.

A very well set pavement of small stone slabs, somewhat disturbed at the west end, extended all through the cist. On this floor the remains of the skeleton were dispersed.

Two incised stone whorls, one quite small, the other large and discoid (Fig. 10), were lying on the uneven pavement at the west end of the cist.

Period most probably same as that of Wall 6. The pottery distribution suggests late Period I.



Fig. 10.—Plot X Strat. Annex. Two Stone Whorls from Cist Burial X_δ

PLOT XI, SKELETON X₁

At a depth of 2.10 a few remains of an adult skeleton appeared. The upper part of the vertebral column was missing, as were the cranium and most of the extremities. A fragmentary ulna, the right pelvis, one foot, some ribs, and the sacrum remained. All the bones were in bad shape, but the position of the pelvis and the foot showed that the legs had been flexed. The skull must have pointed south.

Period II?

PLOT XII, SKELETONS X₁ (No. 3203) AND X₂ (No. 3204)

While digging in Pit 16, which contained much ash and was seemingly divided into two halves by a narrow kerpich wall, the juvenile-adult skeleton of a young mother (X_1) was discovered 4.10 below the surface (Fig. 11, above

at right). It was lying west of the *kerpich* wall, which we determined later was that of a burial cist. The latter measured 1.60×1.00 , its long axis extending north to south. The *kerpich* wall inclosing it was .60 high on the east, .40 on the west, and had a thickness of .25–.30.

The legs of X_1 were closely flexed; so were the arms, the hands extended in front of the face suggesting a praying position. The body was lying on the left side, the skull touching the eastern kerpich wall and facing south. The direction of the vertebral column was 62° east of south. As usual, the skeleton was



Fig. 11.—Plot XII. Skeletons X₁ (Partly Removed) and X₂

poorly preserved; the skull and the other bones were brittle and broken. All the teeth were preserved (wisdom teeth all erupting). The bones of a fetus or very small child were found on the pelvis and a little beside it.

When X_1 was taken out, the knees of X_2 appeared. When the latter was cleared, the form of the cist was determined; for the vertebral column of this adult female skeleton extended parallel to the north wall .20 away from it (Fig. 12). The legs were again closely flexed, the feet touching the west wall of the cist, the skull lying .10 from the east wall and facing south. The arms too were flexed; the right hand was extended in front of the face, the left one resting below the thoracic vertebrae of X_1 . The direction of the vertebral column was

56° east of south. The calva was relatively well preserved, though split. The other bones, including the mandible and the facial bones, were broken and crumbling. The outer orbital angle was rounded; the zygomatic process was not visible from above. The teeth were complete except for the wisdom teeth,



Fig. 12.—Plot XII. Skeleton X_2 with Walls of Kerpich Cist

of which the upper ones were broken and the lower ones lacking. The upper incisors were shovel-shaped.

Though there were no mortuary gifts with either X_1 or X_2 , both burials belonged to Period I, for sherds of red-slipped pottery were frequent around and considerably above the skeletons.

PLOT XVII, SKELETON X₁ (No. 3225)

At a depth of 2.70 this adult-mature male skeleton was found (Fig. 13). Though its original position could not be determined, the legs seem to have been flexed. The body was in a dorsal position, the skull pointing east and the face turned north. The direction of the vertebral column was 55° east of south.



Fig. 13.—Plot XVII. Skeleton X_1 with, Pottery Pitchers Nos. 3154–55

The right arm was extended, the hand touching the right hip bone. The left arm was bent at a right angle, the hand resting on the right elbow. The mouth was wide open, the fragmentary mandible lying on the right clavicle. All the bones were badly disintegrated and broken, the skull crushed and flattened by pressure. The lower extremities were missing.

Two pitchers of Period II, found with this skeleton, determined its date.

¹ Nos. 3154 and 3155; see OIP VI 272.

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Fig. 14.—Plot XVIII. Skeleton X₁ from South

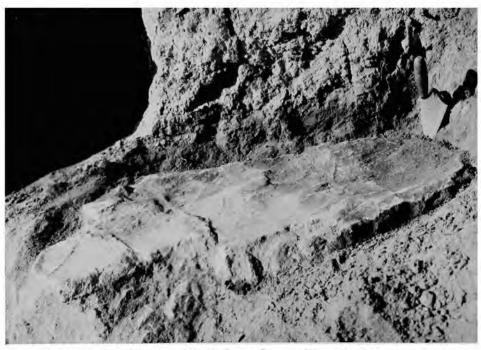


Fig. 15.—Plot XVIII. Stone Slab on Which X_1 Lay

PLOT XVII, SKELETON X2

At a depth of 2.10 appeared the decayed remains of a child's skeleton. Its position and direction were indeterminable.

Probably Period II, like X1.

PLOT XVIII, SKELETON X1 (No. 3205)

Right beside and beneath a wall which extended into the plot from the north, this mature(?) female(?) skeleton was found at a depth of 1.55 (Fig. 14). It was lying on a flat, smooth slab 1.10×.50, which extended .30 under the wall (Fig. 15). The skeleton lay on its left side in a north-south direction with skull to north. The legs were seemingly contracted. The left arm was flexed, the hand extended in front of the chest. All the bones were broken, and many were missing. There were no mortuary gifts.

Period IV?

PLOT XVIII, SKELETON X2

This burial of a child (infans II?) was situated in a group which included also X₃, X₄, and X₆. Skeleton was found in a large mortuary jar, which lay on its side with the upper part somewhat higher than the bottom (Fig. 16). The lowest point was 3.70 from the surface. The orifice of the jar was still blocked by several stones of irregular shape, but with their flat sides turned toward the vessel. The fact that this cover remained in place indicated that the jar was still in its original position.

The vessel was oriented north and south. It was 1.10 high, .75 wide at its largest diameter, and about as wide at the orifice. It was .025-.03 thick, crude and brittle. The paste had almost the appearance of *kerpich*; i.e., small striations and impressions occurred such as are produced by plant tempering. The paste and the interior were grayish black, whereas the exterior was light brown and had apparently been smoothed by a rubbing-stone. The light brown surface color extended inward a distance of .005. A particularly interesting feature of this vessel was the presence of two conical "breasts" on its upper part. They were .09 apart from tip to tip, protruded .01, and were .05 in diameter.

Does the occurrence of breasts on a mortuary vessel support the theory held by some anthropologists, that the flexed mode of burial symbolizes in certain cases the return of the deceased to the womb of the mother and therefore imitates the embryonic position? It may here be mentioned that X_3 of this same plot, found in an identical "female" vessel, was the skeleton of a man.

As far as could be determined, X₂ was lying on its left side. The body had the same orientation as the pot, the skull lying to the south .15 below the orifice.



Fig. 16.—Plot XVIII. Burial Urn with Skeleton X_2 ; Skeleton X_4 in Foreground, X_6 Adjoining X_2 , X_3 in Background

DISPOSAL OF THE DEAD

The legs were contracted as though the person were squatting on the bottom of the vessel. The right arm was bent, the hand lying on the left pelvis. The left arm was extended. The skull and most of the other bones were nothing but a mass of broken and flattened osseous particles. Mortuary gifts were lacking. Period I.



Fig. 17.—Plot XVIII. Sherd with "Breasts" from Mortuary Urn of X_3



Fig. 18.—Plot XVIII. Skeleton X_4 from East

PLOT XVIII, SKELETON X₃ (No. 3206)

The southernmost of the six skeletons found in Plot XVIII was that of an adult male, uncovered 3.30 below the surface (Fig. 16, at top). It was lying beside its broken mortuary urn. The latter was seemingly of the usual form, somewhat tubular and supplied with two breastlike protuberances (Fig. 17) as was the urn of X_2 . The legs were closely flexed, also both arms, the hands folded in front of the face. The skull was west, facing south (not necessarily its original position). The present direction of the vertebral column was 62° west

of north from sacrum to atlas. The body and the skull were lying on the right side. The skeleton was not well preserved. The skull was crushed, as were many of the other bones.

A small copper or bronze ring found near the vertex probably belonged to the skeleton. Similar rings with the later skeleton X_1 of Plot 53 were clearly earrings (cf. p. 29).

Period I.

PLOT XVIII, SKELETON X4 (No. 3207)

In front of the burial urn of X_2 and almost touching it, X_4 was found, a female adult buried without container and without mortuary gifts at a depth of 3.10 (Fig. 16, foreground). The posture of the skeleton, as shown in Figure 18, was that of a peaceful sleeper. The direction of the vertebral column was 26° west of south (sacrum to atlas). The calva was relatively well preserved, but split across the frontal and left parietal. The occipital and left temporal bones were crushed. The nasal part was pressed to the left side. The extremities too were partly cracked. The other bones—ribs, vertebrae, etc.—were, as usual, very fragile and badly broken. The teeth were all present.

Period I.

PLOT XVIII, SKELETON X5 (No. 3208)

This skeleton of a child (infans II) was found 3.10 below the surface right at the north wall of the plot at the same level as skeletons X_2 , X_3 , X_4 , and X_6 . One half of the jar which had sheltered it reached into the plot. The vessel, of the ordinary type (cf. that of X_2 , p. 17), was lying on its side; its orifice, here too closed by stones, was at the north. The side turned toward the surface was badly broken; its fragments rested upon the skeleton. The latter (Fig. 19) lay on its left side, legs contracted, feet touching the bottom of the vessel. The right arm was slightly bent, the hand in front of and touching the pelvis. The left arm was flexed in front of the chest; the hand was probably extended in front of the face. All the bones were brittle and broken, the skull entirely flattened.

A short bone awl lay near the feet and a copper or bronze pin in front of the chest, .10 away from the vertebral column and below the mandible.

Period I.

PLOT XVIII, SKELETON X6 (No. 3209)

The bottom of the crude earthenware jar which contained X_6 at a depth of 3.50 pressed against the stone that closed the urn of X_2 (see Fig. 16). The jar of X_6 , lying roughly northwest-southeast, was .75 long, .58 broad at its largest

diameter and .50 at the orifice, and .02 thick. The part toward the surface had been crushed in.

That in an urn burial the head is not always toward the orifice is shown by this skeleton. It must have been stuffed into the jar head down, since the skull was found at the bottom, the feet just at the orifice. The legs were closely flexed. The body lay on the left side. In the present position of vessel and

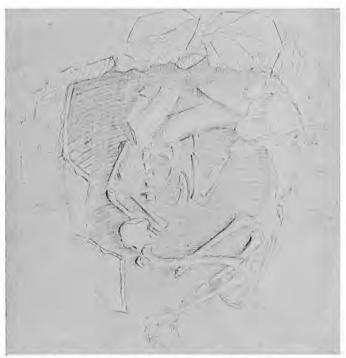


Fig. 19.—Plot XVIII. Burial X5 from South

skeleton, the head was pointing northwest. The right arm was bent, the hand resting at the left side of the skull. The latter was probably leaning against it. The left arm also was contracted, the hand lying in front of the chest, seemingly below the chin. The skull was badly crushed. Some of the other bones were well preserved. There were no mortuary gifts.

This adult skeleton is probably that of a male, though the dental arch is rather narrow and the mandible somewhat weak. Note the pronounced supra-orbital ridges, strong mastoid process, and receding forehead.

Period I.

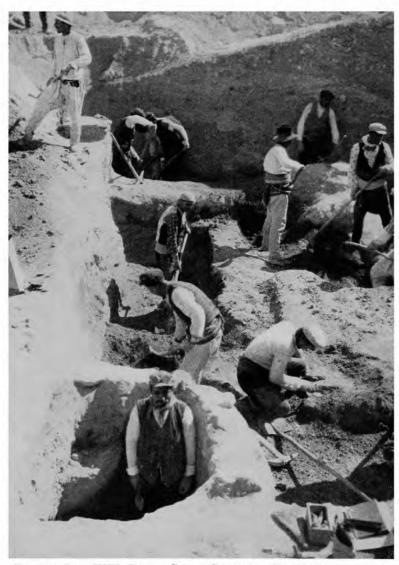


Fig. 20.—Plot XXV. Burial Cist of Skeletons X_{2-4} (in Foreground)

PLOT XXV, SKELETON X1 (No. 3213)

Some .20 below the surface at the north end of the plot, about halfway down the slope, the skeleton of a young person (infans II or juvenile) was discovered. Only the skull, the left humerus, both pairs of lower arm bones, the left hand, and one tibia remained. The slope had long been cultivated, and the farmer's pointed plow had probably torn away the remaining bones.

The skeleton was in a ventral position, the face buried in the soil. Both arms were extended at the sides as though the person had collapsed there. It did not look like a burial. The position near the surface and the exceptionally good preservation of the skull on a slope where water must run down during the rainy season indicated that the skeleton was rather recent. According to our Turkish diggers, about fifteen years ago Armenians and this particular "Armenian" had been killed in this locality. They had belonged to the village of Chiftlik ("estate"), whither they had moved from the now deserted settlement of Manzor Oghlu. The skull and the arm bones recovered were well preserved; the maxilla and the palatine bones were somewhat broken. The mandible was missing. The skull was .179 long, .137 broad; cephalic index, 76.0.

Turkish period?

PLOT XXV, SKELETONS X2, X3, AND X4 (Nos. 3214-16)

The cist (No. 16) in which these three skeletons of very small children (all infans I) were found was situated in the northwest corner of a room, leaning against two kerpich walls, its edge on a level with their stone foundations (Fig. 20). It was a simple inclosure perhaps .50 deep, formed by a curving row of stones .35 broad which met the stone foundations below the two room-walls. There was no definite floor. The skeletons were lying somewhat below the bottom of the added wall. Since, however, both the foundation walls continued below the burials, the bodies had evidently been disposed of by the successors of the builders of the room in which they were found or by those who had built the upper parts of the walls.²

Skeletons X₂ and X₃ were lying almost head to head by the west wall, .45 below its present edge (Fig. 21). Skeleton X₂ was oriented north to south, the skull being north. The position of body and skull was dorsal. The legs were flexed toward the right side. The left arm was bent at a right angle, the hand resting above the pelvis. The right arm also was flexed, the hand lying at the right side of the chest. The skull was crushed, whereas some of the other bones were fairly well preserved.

Skeleton X_3 was oriented northeast to southwest, with skull at southwest facing east. Body and skull lay on the right side. The legs were flexed. The left arm was extended, the hand lying beside the pelvis. The right arm was



Fig. 21.—Plot XXV. Skeletons X_2 and X_3 from East

slightly bent, the elbow lying underneath the ribs, the hand extended in front of the chest. The skull was crushed, but some of the other bones were complete.

Skeleton X_4 was buried in the northeast corner of the cist, .55 below the edge of the added wall and .70 below that of the north room-wall. The skeleton was oriented southeast to northwest, with the skull at northwest facing south-

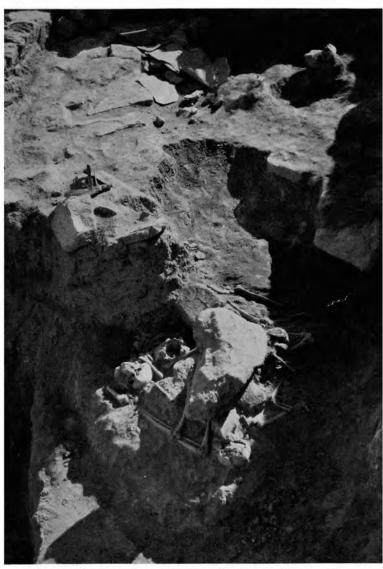


Fig. 22.—Plot XXVIII. Skeletons $\mathrm{X}_2,\ \mathrm{X}_4,\ \mathrm{and}\ \mathrm{X}_3$ from West

west. It lay on the right side. The legs were flexed, the left arm extended, the right arm flexed, the right hand lying underneath the zygomatic arch. The skull was crushed; most of the other bones, too, were broken.

Burials X_2 , X_3 , and X_4 were possibly made by the Period III builders of the town wall ante muros oppidi; or more probably they represent the second occupancy of the room in which they were found, i.e., Period II. No mortuary gifts were present to assist in the dating.

PLOT XXVIII, SKELETON X1 (No. 3217)

On the slab-paved floor of a room the adult-mature male skull X_1 was found, but not a trace of other bones. The shattered skull was lying upside down on the left parietal. A few medullary bones of a child's skeleton were found right below the calva of X_1 .

Period IV.

PLOT XXVIII, SKELETONS X2, X3, AND X4 (Nos. 3218-20)

West of the paved floor on which the X₁ skull was found, and about .10 below it, three skeletons were discovered (Fig. 22). Their positions indicated that they had not been buried, but had been killed or had succumbed to some accident. Some good-sized boulders had fallen on top of them. Were they put there purposely? Or were they remains of the missing west wall of the room, which may have killed these persons during its fall? But the most plausible explanation is that they were killed during a fight.

Skeleton X_2 was the remains of an adult-mature man who had fallen backward over a rock (Fig. 23). His lower extremities lay on one side, while the rest of his body, from the pelvis upward, was found on the opposite side of the rock. The pelvis must have fallen to this side after the disintegration of the body, or it had slipped there due to later pressure of soil and rocks which accumulated on top. When found, the pelvis was lying on the chest of the skeleton, while the lower lumbar vertebrae leaned against the rock. The right radius and ulna also had fallen from their original positions. The former was found on the chest and the latter west of the skull.

The skull was bent very far backward, facing northwest, i.e., in the same direction as the body lay. The left arm was bent to such an extent that the hand was lying right beside the *caput humeri*. The right humerus lay alongside the body. The lower extremities pointed south, the femora leaning against the upper edge of the rock over which the person had fallen. The skull was crushed and most of the other bones broken.

Skeletons X_3 and X_4 were both covered by rocks. Skeleton X_3 , that of a mature woman, was found directly underneath X_4 . It was lying on its back in an east-west direction, with the skull west. Only the skull was visible besides the right arm, which was slightly bent outward and upward. The left arm was



Fig. 23.—Plot XXVIII. Skeleton X_2 , with Lower Extremities and Rest of Body Separated by Rock, and Skull of X_4 , from South

extended alongside but off the body. The position of the arms suggests that the person had fallen backward like X_2 with arms spread out, while the right arm was lifted, possibly for protection. The legs were slightly contracted. All the bones were in bad shape.

After the rocks which were lying on top of X_4 had been removed, it was seen that the pair of leg bones situated north of the rock pile belonged to it. Skeleton X_4 was a child (infans II?). Its legs were slightly contracted. The chest was

pushed forward by a rock lying right behind it. The pelvis was in a dorsal position, while the vertebral column and the skull were lying on the left side. The skull was southeast, the general direction having been southeast-northwest. The lower left arm was extended at a right angle to the humerus in front of the body. Preservation was bad, as with the other two skeletons.

All three skeletons are of Period IV.



Fig. 24.—Plot 53. Skeleton X1, with Roots Growing Out of the Skull

PLOT 53, SKELETON X₁ (No. 3221)

Half buried beneath a wall, .80 below the surface, the skeleton of a young person (infans II-juvenile) was discovered (Fig. 24). The skull, the right arm, and the knees were visible. The burial was in a corner of a room which had been inhabited twice. The wall on top of the skeleton abutted the upper part of another, broader wall. Right below the level of the offset formed thereby, which was also the level of the lower edge of the abutting wall, the skeleton was found.

The position was dorsal, the legs and left arm contracted. The left hand was extended beside the mandible; the skull was turned to the right side, facing north. The right arm was extended, the hand lying beside the pelvis. The body lay east-west, the skull at the east. The skull was crushed flat, but nearly all the other bones were complete.

Two little bronze pendants, rings with overlapping ends, were found, one at each aural cavity. They were .016 wide and .002 thick. Parts of the temporal bones and the mastoid processes were stained greenish by the bronze. We may recall that a similar bronze or copper ring was found near the head of X_3 in Plot XVIII.

Roman period?



Fig. 25.—Plot 53. Skeleton X2 after Clearing

PLOT 53, SKELETON X₂ (No. 3222)

The adult skeleton X_2 was found in the same inclosure as X_1 , but at a lower level. It was 1.50 below the surface and .30–.50 below the level of a stone slab pavement which abutted the foot of the broader wall mentioned under X_1 . Since the pavement was missing around the spot where the skeleton was found, this may be a case of a floor burial. Two slabs of the pavement were lying on top of the pelvic region, covering also the lower legs.

The skeleton occupied a curved position on its right side (Fig. 25), its general orientation having been 20° west of south. The missing skull would have been at the north. The legs were contracted, but much less than was usual at this

site. The knees pointed upward and sideward. The left arm was folded across the chest. The hand, bent inward, must have rested near the mouth. The right arm was flexed under the body; the hand was extended below the lower left arm in front of the chest. Though the skull was missing, the mandible was found. It was very strong and high, indicating in connection with the size of the other bones that the person was a male. Many of the bones were well preserved; they were light ivory in color, contrasting with the yellowed remains of the other skeletons discovered. Their good preservation, as in the case of X_1 , is due partly to the relatively recent age of the burial—it was found in the Roman layer—and partly to its position near the top of the mound, where there is less moisture than in other parts of the ruin.

A piece of iron, possibly a blade, lay beside the lower left leg. At the spinous process of the first thoracic vertebra a frog-shaped red stone was found, probably a natural formation. At the center of the right tibia and below it there was a curved piece of bronze, solid, .01 thick and .07 long, looking like a segment of a ring. Touching the pelvis and below it, the bottom of a plain brownish buff vessel appeared. However, none of these objects can, with certainty, be defined as mortuary gifts. The metal objects were probably parts of the dress.

Roman period?

PLOT 55, SKELETON X₁ (No. 3223)

This skeleton of a child (infans II) was found on the very top of the citadel wall, approximately at the center of the latter and only .10 below the surface (Fig. 26). It lay on its left side, with legs flexed. The skeleton was in bad shape; the skull and most of the epiphyses of the long bones were broken.

Roman period or possibly later.

Using all the data available, the skeletons described above may be tentatively assigned to the following chronological groups:

Period I (type pottery red-slipped, handmade), 12 skeletons: Plot IX, X_1 and X_3 ; Plot X Strat. Annex, X_5 and probably X_4 and X_6 ; Plot XII, X_{1-2} ; Plot XVIII, X_{2-6} .

Period II (type pottery yellowish brown, grainy), 8 skeletons: Plot IX, $X_2(?)$; Plot X Strat. Annex, X_3 (possibly Period I instead); Plot XI, $X_1(?)$; Plot XVII, X_1 , also $X_2(?)$; Plot XXV, $X_{2-4}(?)$.

Period IV (type pottery painted buff), 5 skeletons: Plot XVIII, $X_1(?)$; Plot XXVIII, X_{1-4} .

Roman, or possibly somewhat earlier or later, 5 skeletons: Plot X Strat. Annex, $X_{1-2}(?)$; Plot 53, X_{1-2} ; Plot 55, X_1 .

Turkish, 1 skeleton: Plot XXV, X₁.



Fig. 26.—Plot 55. Skeleton X_1 on Citadel Wall

It is an interesting fact that far more skeletons seem to belong to our remotest periods than to more recent times. The series diminishes steadily from Period I upward. With Period III it may have become customary to dispose of the dead in common burial grounds, probably extramural, which have not yet been found. The skeletons ascribed with hesitancy to the time of Periods III–V are those of children or of persons not buried in an ordinary way.

If our foregoing classification is accepted, the burial customs of the various periods may be summarized as follows:

5 PERIOD I

The most instructive burials of this period were recovered in Plot XVIII. Of the five skeletons here found, four had been placed in big mortuary urns, the orifices blocked with stone slabs. The average depth of these burials was 3.40 below the surface. The vessels were all of the same general type: crude, brittle earthenware pots with plant tempering, gray and black interior, and brown exterior. Their length, however, varied from .75 to 1.10, the other dimensions correspondingly. The form of these vessels was somewhat tubular, with a slightly drawn-in neck and an orifice as wide as, or little narrower than, the greatest diameter of the body. The bottom was flat. Two of the four urns were supplied with breastlike protuberances (described on p. 17). In one of these mammillated pots was a male skeleton; in the other, a child. In the two plain urns lay a child and a skeleton of doubtful sex which had been stuffed head down into its vessel. The skeleton buried without a mortuary vessel was that of a woman.

It is interesting to note that at Carchemish the burials in the lowest layer—Neolithic according to Woolley—were pot burials. The bodies there were set upright in the embryonic (probably meaning contracted) position in pots buried beneath the floors of rooms.¹

No orientation toward a sacred or traditional spot was evident, as the following table will show:

Plot XVIII, X2: body north-south, skull south

Plot XVIII, X3: body east-west, skull west (original position?)

Plot XVIII, X₄: body north-south, skull south Plot XVIII, X₅: body south-north, skull north

Plot XVIII, X6: body northwest-southeast, skull northwest

The legs of all the skeletons were contracted, but had not been tied to the body. Two had a squatting position on the bottom of the burial jar. The body lay on its left side in three cases, on its right in one. Only one skeleton $(X_4,$ which lacked a jar) rested on its back.

¹ C. L. Woolley in the Liverpool Annals of Archaeology and Anthropology VI (1913) 88.

As to the hands, in X_3 both were folded in front of the face, a position repeated in the case of Plot XII, X_1 . Each of the children found in Plot XVIII had one hand touching the pelvis. The hands of the other persons were in various positions, the arms extended or contracted. The hands of a skeleton in sleeping posture were also in front of the face but not folded.

Summarizing the burial methods of this earliest period, as revealed both in Plot XVIII and elsewhere, we find

- (1) Urn burials: Plot IX, X1 and X3; Plot XVIII, X2-3, 5-6;
- (2) Plain burials: Plot X Strat. Annex, X4; Plot XVIII, X4;
- (3) Kerpich cist burial: Plot XII, X₁₋₂ (room burial);
- (4) Refuse pit burial: Plot X Strat. Annex X₅ (floor burial); and possibly
 - (5) Stone cist burial: Plot X Strat. Annex, X6.

The legs of all the skeletons were contracted.

Two urns were mammillated (Plot XVIII, X₂₋₃).

Few mortuary gifts accompanied these skeletons. Three copper or bronze pins and a copper or bronze earring (Plot IX, X_1 and X_3 ; Plot XVIII, X_3 and X_5), a bone awl (Plot XVIII, X_5), and two stone whorls (Plot X Strat. Annex, X_5) were found. Other than the foregoing, little if any metal occurred in the layer of the red-slipped pottery. The objects found with Plot X Strat. Annex, X_4 —a crude cooking-pot, fire-hardened bricks, a bead, and a perforated animal tooth—conclude the series.

The variation of almost 3 meters in depth of such burials as X_5 and X_6 in the Stratigraphic Annex calls to mind the diversity of levels at which the skeletons assigned to Period I were found. Though the culture stratum accumulated during this period is quite deep, the objects contained in it do not show any differentiation. For this reason considerable time may have intervened between two burials, even though both took place during the same culture phase.

PERIOD II

The only burial which can with full certainty be attributed to Period II is Plot XVII, X₁. This skeleton was accompanied by two pottery pitchers of characteristic Period II type (Nos. 3154–55). Of the other Period II possibilities listed on page 30, Plot X Strat. Annex, X₃, may be older. Plot XXV, X₂₋₄, buried in a stone cist built into the corner of a Period II room, are probably contemporary with it.

Most of the skeletons assigned to Period II are of children. There were no urn burials. The three children of Plot XXV were in a stone cist; the remains of Plot IX, X₂, were found in a refuse pit. The rest were buried in plain earth.

Where the position could be determined, the legs were regularly found contracted. No rule of orientation could be determined. As to mortuary gifts, only the pitchers of Plot XVII, X₁, were found.

PERIODS III, IV, AND V

Lack of mortuary gifts continues to make uncertain the exact period of later burials also. The pottery found around and above X_{1-4} of Plot XXVIII leaves little doubt that they belong to Period IV. As already mentioned (p. 26), X_{2-4} had not been regularly buried but had perished by accident or violence and lay where they had fallen. Skeleton X_1 of Plot XVIII lay on a stone slab, the legs apparently contracted. This skeleton is not as certainly dated as the others, but it too is probably of Period IV.

ROMAN PERIOD

Of the Roman(?) burials, X_{1-2} of Plot 53 were found near the summit of Mound A. The child's skeleton, X_1 of Plot 55, in the same locality, lay on top of the Period V citadel wall in refuse soil containing a mixture of Period V and Roman objects. These three showed no uniformity of orientation, but all had the legs more or less contracted. The two in Plot 53, being the more deeply buried, may perhaps be pre-Roman. The very uncertainly dated skeletons X_{1-2} in Plot X Strat. Annex were those of children. X_1 was contracted; the position of X_2 was uncertain. Both were simply buried in the earth.

Objects found with the foregoing burials include a pair of bronze earrings with X_1 in Plot 53; a fragment of bronze, one of iron, and part of a plain buff vessel with X_2 of the same plot; and a crude, characterless pot near X_1 in Plot X Strat. Annex. The earrings were of a form common also in layers preceding the Roman. Iron objects were most frequent in the Roman or classical layers.

TURKISH PERIOD

As explained on page 23, skeleton X_i of Plot XXV is almost certainly that of a person who died, or more probably was killed, very recently.

In conclusion, it must be emphasized that, though our datings have been carefully considered, only the following attributions may be considered certain:

Period I: Plot IX, X_1 and X_3 ; Plot X Strat. Annex, X_5 ; Plot XII, X_1 and X_2 ; Plot XVIII, X_{2-6} .

Period II: Plot XVII, X₁. Period IV: Plot XXVIII, X₁₋₄.

II

FIGURINES

FRAGMENTARY HUMAN FIGURES (Fig. 27)

These may have been idols.

PERIOD I. POTTERY

Field No.	Plot	Depth in Meters	
12	I	Refuse	Female; head and neck lost; breast and sexual organ marked
			by pricking

PERIOD II (or I?). POTTERY

Field No.	Plot	Depth in Meters	Remarks
1445	III	.90	Legs omitted; base ovoid
1488	IV	2	Head and neck lost; base slightly concave
2894	XXV	1-2	Female; stumps represent legs. Cf. Mesopotamian pieces, especially those from Tell Halaf, in which likewise only the trunk is relatively carefully worked out
3046	XXIX	5.20	Badly broken, similar to preceding
3183	XXIX	3	Phallic; head, neck, and arms lost

PERIOD II. POTTERY

			ERIOD II. TOTTERT
Field No.	Plot	Depth in Meters	Remarks
1452	III	*****	Female(?); eyes, hair, and necklace marked by pricking
1528	IV	Refuse	Head?
1576	V	1.90	Male; one hand rests on hip, other arm is lost; found with No. 1577
1577	V	1.90	Female; similar to No. 3361, but very incomplete
2335	XIV	2	
2337	XIV	1.90	
2383	XIV	4.50	Torso; medallion on chest
2488	XV	6.20	
2941	XXV	4.20	Phallie; medallion on chest; broad, thick girdle; one hand on hip, other arm and both legs lost
3004	XXIX	1.80	Female; badly broken
3137	XV	2	
3143	XV	3.50	Male(?) similar to No. 2383
3361		Cent	Female; breasts and navel indicated; one arm lost; base

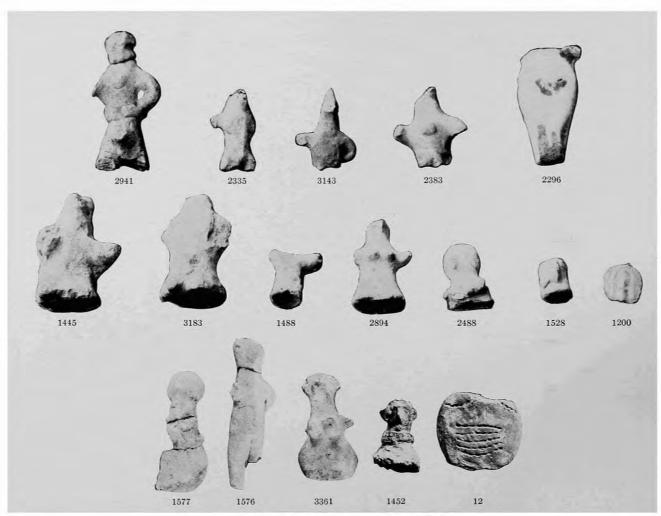


Fig. 27.—Human Figurines. Scale, 1:2

FIGURINES

37

IMPORTS OF PERIOD II

Field No.	Plot	Depth in Meters	Remarks
1967	VIII	2	Ivory fragment of a female head with elaborate headdress
2296	XIII	2.70	Blue glaze; female with breasts and sexual organ indicated in dark brown; hands holding breasts as in Mesopotamian Ishtar figures

ROMAN OR BYZANTINE

Field No.	Plot	Depth in Meters	Remarks
1200	46	1	Greenish glass; female head and neck with carefully dressed hair; vertical hole in neck, probably for attachment as a handle



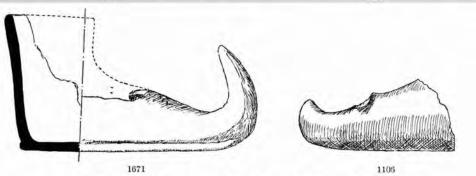


Fig. 28.—Pottery "Shoes" of Period II. Scale, 1:2

POTTERY "SHOES"

PERIOD II (Fig. 28)

No. 334, Plot 4. Sole is indicated. Pointed toe and upper part are broken off. This piece and No. 1671 seem to have been drinking-vessels. Paste medium, with gray core, covered with a red wash mixed with mica.

No. 1671, Plot IV, Depth 2 meters. Toe upturned. Sole is indicated. Part of upper edge survives. Paste as in No. 334.

No. 1106, Plot 42, Depth 1.80. Near the upturned toe are traces of attachment of what may have been a handle, if this object as a whole was another drinking-vessel. On the other hand, our fragment might be part of a statuette. Paste medium, with gray core and light brown smooth surface.

No. 1533, Plot IV, Depth 1.80. Perhaps part of a statuette. Paste medium; gravish yellow surface.

PERIOD IV (Frontispiece)

No. 3360, Plot 58, Depth 3.50. Leg and foot, probably from a statuette, wearing shoe with upturned toe. The pottery is covered with a slip on which is painted a high laced shoe and what may be a stocking ornamented with a checkerboard design. Similar laced shoes are still worn around Gaziayntap and Maras.¹ Paste medium fine; core brown with reddish surfaces.



Fig. 29.—Diorite Palettes(?). Scale, 1:2

ANIMAL FIGURES

Besides figurines proper, we found utensils and parts of vessels modeled in animal form.

PERIOD I

DIORITE PALETTES? (Fig. 29)

Though these figurines may have been amulets or votive offerings, perhaps they are analogous rather to the slate palettes so commonly used in predynastic Egypt for grinding cosmetics. No. 1944, a sheep, comes from Plot IX, depth 1.60.

PERIOD II

POTTERY FIGURINES

Small animal figures were common throughout Stratum II. Most of them were roughly made of coarse black ware, but there were a few pieces of medium paste with grayish black core and a buff wash mixed with mica or a reddish wash. The figures are .025-.170 in length, .015-.110 in height, and .015-.070 in thickness. Most of the identifiable pieces represent sheep; horned animals, bulls, or zebus, are rare; occasional dogs or lions may be present. Our workmen

¹ Cf. OIC No. 8, pp. 87-90.

FIGURINES

called them all "sheep," and said that they still make similar toys for their children. Whether the ancient figures were toys or means of magic remains uncertain.



Fig. 30.—Animal Figurines of Period II. Scale, 1:2

Field No.	Plot	Depth in Meters
1318	Mound A	Refuse
1399-1400	II	
1427 (Fig. 30)	II	
1482	IV	1.50
1557	V	Refuse, 1-2
1561	V	Refuse, 1-2
1565	V	Refuse
1574	V	2.40
1622	V	
1686	VI	1.50
1705	VI	
1795	VII	
1798	VII	
1829	VIII	050
1878	IX	Refuse
1943	IX	1.40
1949-50	IX	
1952	IX	Refuse
2131	XI	Refuse
2138	XI	2.50
2146	XI	2.60
2150	XI	Refuse
2239	XII	3.50
2323	XIV	1.60
2455	XV	2.50
2464	XV	3.40
2511	XV, Pit 5	
2586	XVIII	1.20
2603	XVIII	
2640 (Fig. 30)	XVIII	Refuse, 3-4
2805	XXIV	2.80
2967	XXVI	.90
3171	XXVI	1.50
3192	XVIII	Refuse

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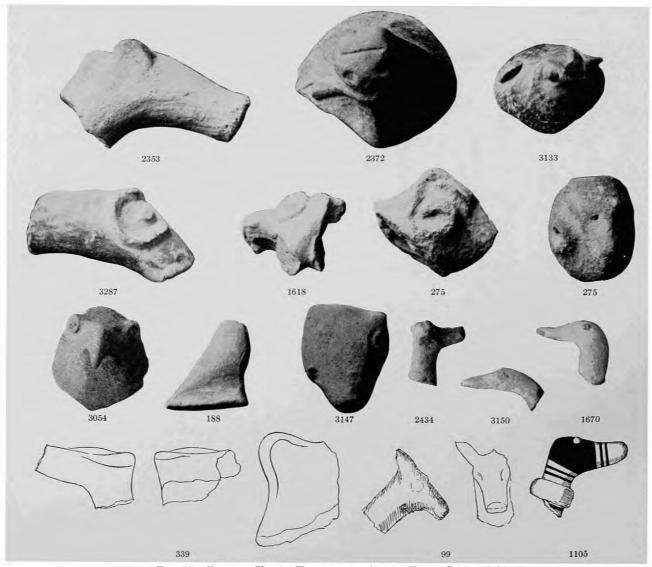


Fig. 31.—Pottery Vessel Elements in Animal Form. Scale, 1:2

FIGURINES

		Le	AD FIGURINE (Fig. 30)	
Field No.	Plot Der	th in Meters	in Tidomina (xig. 50)	Remarks
3195	XXIII		Bird standing on a nea	rly circular base; badly corroded
	POTTER	Y VESSEL	ELEMENTS IN ANIMAL F	FORM (Fig. 31)
			SPOUTS	
Field No.	Plot Der	th in Meters	510015	Remarks
1516	IV		Only muzzle preserved and a wash mixed wi	paste medium with grayish core
2353	XIV	4.20	Conventionalized head;	paste as above
2423	XV	1.40	Conventionalized head and a red-brown was	; paste medium with grayish core h
3147	XV	5.80	Bull's head; paste med gray surface	ium with gray core and yellowish
		HAN	DLES (used as in Fig. 32	
Field No.	Plot Der	oth in Meters		
1670	VI	1.90	Bird's head; paste me- dium with gray core and a yellowish wash mixed with mica	
2434	XV	1.70	Conventionalized head; paste medium with gray core and a reddish wash	Fig. 32.—Diagram Showing Use of Animal Head No. 1670
2556	XVII	2.20	Bird's head fragment similar to No. 1670 in styleand material	AS HANDLE OF A BOWL OR CUP, Scale, 1:2
3150	XV	6.40	Bird's head; paste as in	No. 1670
3287	XV	3.90	Head of a horned anim	al; paste as in No. 2423
			VARIOUS	
Field No.	Plot De	pth in Meters		Remarks
1618	V		Lion-head fragment; pa	
2372	XIV	4		ue head, perhaps lower part of a No. 2423, hand-polished
3054	XXIX	5.40		probably from a rhyton, but pos- turine; paste as in No. 2372
3133	XIV	1.30	Similar to preceding	
			PERIOD IV	
Field No.	Plot De	pth in Meters		Remarks
1105	42	2	Spout fragment in fo	orm of a conventionalized head; lish brown, light buff slip painted

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PERIOD UNCERTAIN

Field No.	Plot	Depth in Meters	Remarks
99	5		Head; one ear lost; paste medium with grayish surface
188	9	****	Eagle; head, feet, and base lost; coarse ware, with reddish brown surface
275	13	****	Ram's head, much worn; eyes once inlaid(?); paste coarse with reddish brown surface

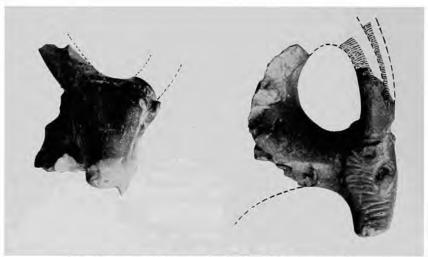


Fig. 33.—Camel's-Head Handle No. 1204. Scale, 1:2

339	16	****	Fragments of a zoömorphic vessel(?); paste coarse with dark buff slip
650	25	* * * *	Sherd with a conical protuberance resembling a turtle head; paste coarse, grayish
1204 (Fig. 33).	46	.50	Handle in shape of a camel's(?) head and neck; upper part of handle divided. Paste fine, grayish, with grayish black polished slip; Roman?

III

SEALS AND IMPRESSIONS

The seals which we found included stone cylinders, perforated lengthwise for rolling over clay, and pottery, stone, and metal stamps of various shapes. Besides the seals themselves, many impressions were found.

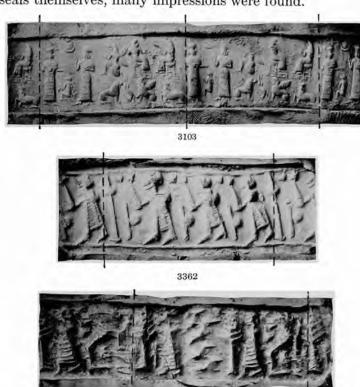


Fig. 34.—Impressions from Cylinder Seals. Actual Size

CYLINDER SEALS OF PERIOD II (Fig. 34)

No. 3103, Plot XIV, from refuse 3.00-3.50 deep. Red jasper, .018 length \times .010 diam. A beardless worshiper wearing a round headdress and a long pleated garment approaches, with hand raised, a deity likewise beardless and wearing a similar garment but a horned headdress. Between the two figures appear a

disk and crescent above a small seated figure with animal head. Behind the worshiper, arranged in two registers, appear several figures. In the upper register kneels a bird-headed, winged demon wearing a long pleated garment. Behind him two figures with carefully dressed long hair and pleated garments sit facing each other before a small table. The food upon this is represented by three dots. Each figure holds a small goblet in an outstretched hand. Each seat stands upon a low dais. The lower register shows a seated lion facing a seated winged sphinx and a crouching bull with bearded human head *en face* wearing a horned headdress. Between the sphinx and the lion a small antelope is apparently suspended in the air by its hind legs.

No. 3362. Grayish limestone, .020 length × .010 diam. Three identical figures with round headdresses and long garments approach a pole near the upper end



FIG. 35,—STONE STAMPS

of which there is a disk-shaped enlargement. Each figure holds a long pointed object with triangular head, before which appears another triangular object. Before each figure stands an upright bar with a disk-shaped attachment at its center.

No. 1535, Plot IV, depth 1.80. Serpentine, .018 length × .010 diam. On each side of the cylinder a human figure in a long garment stands facing a tree. Between these similar groups appear on one side four small animals, one above another, and on the other perhaps a larger animal erect on its hind legs.

STAMP SEALS WITH HANDLES

STONE (Fig. 35)

No. 1156, Plot 45, depth 1.50. Greenish serpentine, .020 h.×.015 diam. Handle perforated. On the base two lines cross at right angles; a third line bisects two of the quadrants. Period I.

No. 3094, Plot XV, from rubbish 5-6 meters deep. Limestone, .022 h.×.017 diam. Handle perforated. Base bears a cross-shaped design, with angles inscribed in each corner. Period I.

SEALS AND IMPRESSIONS

No. 1536, Plot IV, depth .70. Grayish limestone, .021 h.×.016 diam. Handle decorated with parallel incisions and ending in a perforated knob. Base shows a rosette within a rope border. Period II.

No. 3097, Plot XXX, from rubbish 2.00–2.80 deep. Brownish limestone, .015 h.×.017 diam. Handle as in No. 1536, but top broken off. The design, framed by a rope border, shows a bird of prey above a crouching hare. Period II.

COPPER OR BRONZE (Fig. 36)

No. 3091, surface. .021 h.×.020 diam. Handle ends in a horizontal double cone, perforated. Edge of base has four equally spaced notches. Design on base consists of two concentric circles, the space between them filled with radiating dashes. Inside the inner circle are two groups of segments of concentric circles, back to back. Period uncertain.

No. 2911, Plot XXV, depth 3 meters. .020 h.× .020 diam. Handle perforated. Design on base, if any, completely destroyed by corrosion. Probably Period I.



FIG. 36.—METAL STAMPS

POTTERY (Fig. 37)

No. 1447, Plot III, depth 1.30. .042 h.×.052 diam. Handle perforated. On the slightly convex base appear three concentric rings. Period II.

No. 1526, Plot IV, Pit 6. .042 h.×.049 diam. Handle partly broken off. On the slightly convex base appear three concentric rings incised in a rope pattern. Period II.

No. 2350, Plot XIV, depth 4 meters. .032 h. ×.035 diam. Perforated handle. Design unrecognizable. Period uncertain.

No. 2242, Plot XII, depth .50. .065×.023. Very crude, irregularly shaped stamp. Handle broken off, perforation partially recognizable. On the base appear scattered holes. Period II.

No. 2907, Plot XXV, from rubbish 2-3 meters deep. .018 h.×.020 diam. Handle irregularly shaped, perforated. No ornamentation. Period uncertain.

No. 1651, Plot IV. .025×.0225. Part of handle is broken off. Around a large hole in the center are grouped ten smaller holes. Outside of them seven large shallow depressions form a rosette-like design. Period II.

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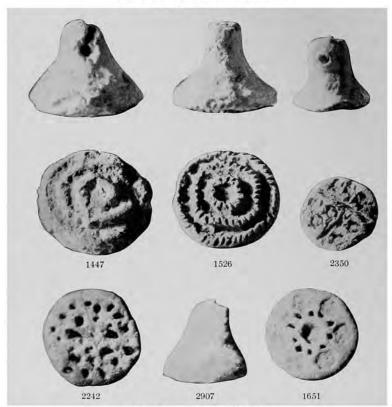


Fig. 37.—Pottery Stamps

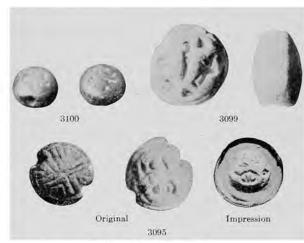


Fig. 38.—"Bullae"



Fig. 39.—Decorated Potsherd of Period IV Associated with "Bulla" No. 3100. Scale, 1:2

SEALS AND IMPRESSIONS

STONE "BULLAE" (Fig. 38)

These three objects are doubly convex, perforated. All bear "Hittite hiero-glyphic" inscriptions. They were associated with Period IV pottery. No. 3100, for example, was lying beside the typical Period IV sherd shown

in Figure 39.

No. 3100, Plot 60, depth 3.30–3.60. Black serpentine. Both sides, badly worn, show traces of hieroglyphs surrounded by a single-line border.

No. 3099, Plot 58, depth 1.70. Limestone, discolored by heat. One side shows seven hieroglyphs within a single-line border. The other side is plain.

No. 3095, Plot XVIII, from rubbish 1–2 meters deep. Limestone, discolored by heat, .010 thick×.018 diam. One side shows five hieroglyphs within a single-line border. The other side bears a cross-shaped design with angles filling its corners.

CONICAL STONE STAMPS (Fig. 40)

No. 737, Plot 28. Brownish limestone, .023 h. × .013 diam. Top lost. On base is crudely engraved a stag(?) whose antlers inclose a star. Beginning of first millennium B.c.

No. 1051, Plot 38. Diorite, .023 h.×.013 diam. Base bears an unrecognizable design of lines and dots. Beginning of first millennium B.C.

SCARABOIDS (Fig. 41)

No. 3101, Plot 60, depth 3.30–3.60. Limestone, .022×.019×.012.

No. 3102, Plot 60, from rubbish 3-4 meters deep. Limestone, .012 diam.×.010 thick.

No. 2398, Plot II, depth 1.20. Black serpentine, .019×.015×.006.

The designs incised on the bases are clearly shown in Figure 41. All are perforated lengthwise. Associations link Nos. 3101–2 with Period IV.



Fig. 40

CONICAL

STONE

STAMPS

Fig. 41.—Scaraboids

UNUSUAL STAMP FORMS (Fig. 42)

No. 2134, Plot XI, depth 1.30. Bone, .017 h.×.014×.008. Handle perforated. Base rectangular, with three incised circles with centered dots. The two longer sides each have two similar circles. Period I.

No. 1846, Plot IX, depth .20. Brass finger ring. Bezel engraved with seven circles with centered dots. Period uncertain.

No. 3092, surface. Reddish serpentine, .025×.021×.004. Fragment with remains of a crosswise perforation. Hieroglyphic signs, some of them incomplete, occur within a border. Period IV.

No. 1963, room in Plot VIII. Serpentine, .034×.020×.022. Recumbent animal figure with rectangular base. Stamp seals of this form occur frequently at Susa. Period II?



FIG. 42.—UNUSUAL STAMP FORMS



Fig. 43.—Gems

GEMS (Fig. 43)

No. 979, Plot 30. .020×.016×.010. Oval gem of milky chalcedony with convex back and a small lengthwise perforation. On base is engraved a recumbent unicorn, winged. Greco-Persian period.

No. 985, found on the surface in a dump heap near Plot 2. .014×.012×.005. Oval gem of reddish chal-

cedony with faceted back and convex base. Base shows a small standing figure in a long draped garment. Late Roman period.

ANCIENT SEAL IMPRESSIONS (Fig. 44)

No. 1468, Plot IV, depth 1 meter. .018×.009. Half-oval impression, stamped on fragment of pottery "handle," contains six convex-sided "spires" arranged symmetrically. Period II.

No. 1840. Plot IX, depth 1.10. .026 diam. Partly preserved circular stamp seal impression, on fragment of pottery label or stopper, has a looped design within a rope border. Period II.

No. 2305, Plot XIII. .011 diam. Circular stamp seal impression, on fragment of pottery label or stopper, shows two pairs of lines crossing over three concentric rings. Period II.

No. 3081, Plot XXX, depth 2 meters. .013 diam. Circular stamp seal impression on sherd of crude grayish pottery. Design unrecognizable. Period uncertain.

SEALS AND IMPRESSIONS

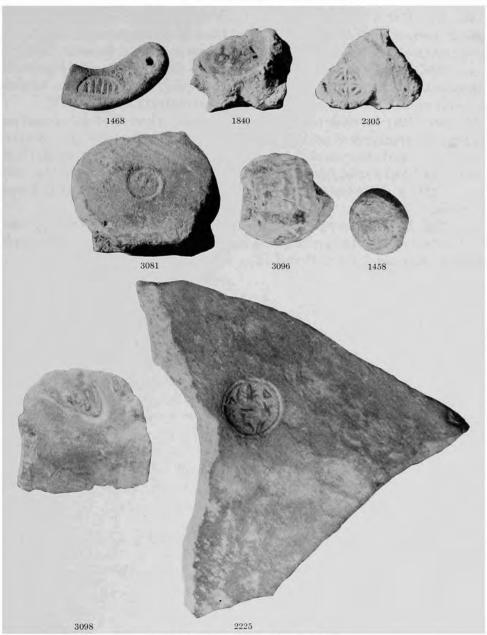


Fig. 44.—Ancient Seal Impressions

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No. 3096, Plot XVIII, depth 1.20. Three cylinder seal impressions on fragment of pottery label or stopper. One of them is unrecognizable; each of the other two (.013 w.), only partly preserved, shows a standing animal. Period II.

No. 1458, Plot III, refuse. .022 diam. Partly destroyed circular stamp seal impression, on fragment of pottery label or stopper, shows a rosette between two lions which stand on their hind legs facing each other. Period II?

No. 3098, Plot 58, from rubbish 3.00–4.50 deep. Three oval stamp seal impressions on fragment of pottery label or stopper. Each of the two identical ones (.012×.008) shows within a single-line border a recumbent animal with horns (stag?) and a small branch behind it. The partly broken one (.011×.010) shows within a single-line border a winged animal over a small twist. Period uncertain.

No. 2225, Plot XII, depth 1.20–2.50. .017 diam. Well preserved impression of a "bulla," on sherd of crude brown ware, with eight "Hittite" hieroglyphs within a single-line border. Period IV.

IV

COINS

BY EDWARD T. NEWELL

The ancient coins procured by this expedition during its campaign of 1927 in the heart of Asia Minor fall into two categories. The first, contained in Part I of the following catalogue, comprises all the coins actually found in the series of excavations carried on from July to October, 1927, at the Alishar mound. Part II, on the other hand, comprises such coins as were obtained from time to time by means of purchase from the peasants of the immediately surrounding districts. The better specimens of both categories are illustrated in Figure 45.

Throughout the catalogue the first column contains the running numbers. In Part I the second column furnishes the field catalogue number given to each specimen as it was found. By this means the exact find-spot of each individual coin may be identified in the expedition's field notes.

In Part II the second column contains the name of the village or district where the piece in question was purchased and near which, presumably, it had actually been found. In both parts the third column contains the name of the issuing city or ruler, with dates. The fourth column describes the metal, the denomination and weight in grams (in the case of gold or silver) or size in millimeters (in the case of bronze). Finally, the fifth column contains the description of the coin itself, together with particular date of issue, references, or other notes. These references are to similar coins described in certain recognized and easily accessible handbooks or catalogues. The abbreviations employed for these works are as follows:

A. GREEK COINS

Müller L. Müller, Numismatique d'Alexandre le Grand, suivie d'un appendice contenant

les monnaies de Philippe II et III. Copenhagen, 1855.

B.M.C. British Museum, Catalogue of the Greek Coins of Galatia, Cappadocia, and Syria.

By Warwick Wroth. London, 1899.

Waddington William Waddington, Recueil général des monnaies grecques d'Asie mineure.

Tome I, 2d ed. Paris, 1925-.

B. ROMAN COINS

Cohen Henry Cohen, Description historique des monnaies frappées sous l'empire romain. 2d ed. Paris, 1880. Vols. VI, VII, and VIII.



Fig. 45.—Coins Obtained in 1927. Actual Size. Nos. 1, 2, and 4 Were Found at Alishar; the Others Here Shown Were Purchased

COINS 53

C. BYZANTINE COINS

B.M.C. I or II Catalogue of the Imperial Byzantine Coins in the British Museum. By Warwick Wroth. London, 1908. Vols. I and II.

D. AYYUBID COINS

B.M.C. IV Catalogue of the Oriental Coins in the British Museum. Vol. IV. By Stanley Lane-Poole. London, 1879.

E. SELJUK COINS

B.M.C. III Catalogue of the Oriental Coins in the British Museum. Vol. III. By Stanley Lane-Poole. London, 1877.

F. OSMANLI COINS

B.M.C. VIII Catalogue of the Oriental Coins in the British Museum. Vol. VIII, By Stanley Lane-Poole. London, 1883.

G. SASANIAN COINS

Paruck Furdoonjee D. J. Paruck, Sasanian Coins. Bombay, 1924.

In addition, for the purpose of more closely determining the dates and issues of the Roman coins, the following works have been consulted:

Jules Maurice, Numismatique constantinienne. Paris, 1908.

Otto Voetter, Katalog der hinterlassenen Sammlung und Aufzeichnungen des Herrn Paul Gerin. Vienna, 1921.

With regard to the so-called "anonymous Byzantine" bronze coinages, caution should be exercised in following the attributions proposed by Wroth in his Catalogue of the Imperial Byzantine Coins in the British Museum. Professor Alfred R. Bellinger, in his The Anonymous Byzantine Bronze Coinage (American Numismatic Society, "Numismatic Notes and Monographs," No. 35. New York, 1928), has conclusively demonstrated that many of Wroth's assignments are erroneous or, at least, very doubtful.

The writer's grateful thanks are due to Mr. Howland Wood, curator of the American Numismatic Society, for his valuable assistance in the decipherment of the Moslem coins, as also in the scientific cleaning of the most badly corroded of the bronze specimens. The silver coins have been cleaned by the writer.

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THE ALISHAR HÜYÜK

PART I

COINS FOUND DURING EXCAVATIONS AT THE ALISHAR MOUND, 1927

A. GREEK

MA	CED	ONIT	NT.	KIN	JAR

		A	ACEDONIAN	KINGS
1	267*	Philip III Arrhidaeus, 323–316 B.C.	Silver drachma, 4.01 grams	Head of young Heracles to r. wearing lion's skin. Reverse: Φ IAI[$\pi\pi\sigma\nu$] on r. Zeus, naked to waist, seated to l. on diphros and holding eagle on outstretched r., his l. resting upon a scepter. In field to l., \spadesuit . Deep test-cut on edge of coin. Müller No. 89.
		кі	NGS OF CAP	PADOCIA
2	1129*	Ariarathes VI, circa 125-111 B.C.	Silver drachma, 3.99 grams	Diademed head of the king to r. Reverse: BAΣΙΛΕΩΣ APIAPAOOT ΕΠΙΦΑΝΟΤΣ. Athene, wearing helmet and long chiton, standing to l. With outstretched r. she holds winged Nike; her l. supports shield and spear. In field to l., In the exergue, regnal year Γ ("3"). Variety of B.M.C., p. 35, No. 3.
3	1013	Uncertain	Bronze, 17 mm.	Head(?) to r.(?). Reverse: Horseman galloping to r. No inscription visible. The fabric and types of this coin are not unlike those of the bronze issues of Ariaramnes; cf. Théodore Reinach, Trois royaumes de l'Asie Mineure, p. 30, No. 5, Pl. I.
4	739*	Caesarea in Cappadocia: Hadrian, 117–38 a.d.	Silver hemi- drachma, 1.32 grams	ATTO K[aic Tpai $\Lambda\delta\rho$]IAN[oc $c\epsilon\beta ac\tau$] around a laureate, draped bust of Hadrian to r. Reverse: Nike to r. holding palm branch in I. and wreath in outstretched r. In field to r., ET Δ (year 4). B.M.C., p. 62, No. 142.
5	3112	Samosata in Commagene: Philip Jun., 244-49 a.D.	Bronze, 30 mm.	ATTOK K M IOTAI ΦΙΛΙΠΠΟΟ CCB. Laureate, draped bust to r. of Philip Jun. Reverse: CAMOCATΩN around turreted female figure (the Tyche of Samosata) seat-

No. 56.

ed to l. upon a rock. She holds ears of wheat in r., rests l. upon the rock; beneath her feet Pegasus running to l. B.M.C., p. 123,

^{*} Illustrated in Fig. 45.

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			B. Ron	IAN
6	1540	Diocletian, 284–313 A.D.	Bronze, 23 mm.	IMP C C VAL DIOCLETIANVS P F AVG. Radiate and draped bust to r. Reverse: IOV ET HERCV CONSER AVGG. Jupiter standing to r. with globe and scepter facing Hercules to l. with victory and club. Between: Δ. In the exergue, XXI. Struck at Antioch after May 1, 285. Cohen VI 430, No. 146.
7	1972	Maximianus Herculeus, 286–310 a.d.	Bronze, 22 mm.	IMP C MA MAXIMIANVS P F AVG. Radiate and draped bust to r. Reverse: CONCORDIA MILITVM. Jupiter with scepter, standing to l. and offering a small victory on globe to emperor standing to r. Between them, KΔ. Struck at Cyzicus. Cohen VI 499, No. 54.
8	2823	Maximianus II, Galerius Valerius, 292–311 A.D.	Bronze, 26 mm.	IMP C GAL VAL MAXIMIANVS P F AVG, Laureate head to r. Reverse: VIR-TVTI EXERCITVS CMH. Mars, holding spear, shield, and trophy advancing to r. In the exergue, SMNA. Struck at Nicomedia. Cohen VII 126, No. 232.
9	2740	Maximinus II, Daza, 305-13 A.D.	Bronze, 26 mm.	GAL VAL MAXIMINVS NOB CAES. Laureate head to r. Reverse: GENIO CAESARIS. Genius standing facing and holding patera in r. and cornucopiae in l. In the exergue, HTA. Struck at Heraclea Thraciae. Cohen VII 146, No. 40.
10	2741	Licinius Jun., 314-26 A.D.	Bronze, 20 mm.	DN VALLICIN LICINIVS NOB C. Laureate, draped bust to l. holding mappa in r. and scepter in l. Reverse: IOVI CONSERVATORI CAESS. Jove standing holding victory in r. and resting l. on scepter. At his feet a crouching captive with bound hands and wearing a Phrygian cap. In r. field, X above III. In the exergue, SMANT. Struck at Antioch. Cohen VII 218, No. 32.
11	178	Constantine the Great, 306-37 A.D.	Bronze, 18 mm.	IMP CONSTANTINVS AVG. Laureate, draped bust to I. holding mappa in r. and scepter in I. Reverse: IOVI CONSERVATORI AVGG. Jupiter standing facing, hold-

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				ing victory in r. and resting l. upon scepter. At his feet a palm branch. In r. field, B. In the exergue, SMN. Struck at Nicomedia. Cohen VII 263, No. 301.
12	1050	Constantine the Great, 306–37 A.D.	Bronze, 19 mm.	CONSTANTINVS AVG. Diademed head to r. Reverse: PROVIDENTIAE AVGG. Gate surmounted by two towers with a star between them. In the exergue, SMNS. Struck at Nicomedia between 324 and 326 A.D. Cohen VII 281, No. 454.
13	224	Constantine Jun., 317–40 A.D.	Bronze, 16 mm.	CONSTANTINVS IVN NOB C. Laureate, draped bust to r. Reverse: GLORIA EXERCITVS. Two soldiers standing facing with shields and spears. Between them is a military standard. In the exergue, SMKS. Struck at Cyzicus between 335 and 337 A.D. Cohen VII 377, No. 114.
14	2050	Constantius II, 323-61 a.d.	Bronze, 18 mm.	FL IVL CONSTANTIVS NOB C. Laure- ate, draped bust to l. Reverse: PROVI- DENTIAE CAES. Gate adorned with two towers between which a large star, In the exergue, MNA. Struck at Nicomedia be- tween 324 and 326 A.D. Cohen VII 465, No. 167.
15	926	Constantius II, 323-61 A.D.	Bronze, 16 mm.	draped bust to r. Reverse: VICTORIAE DD AVGG Q NN. Two winged victories facing each other and holding wreaths in their outstretched r. hands. In the exergue, SMALEA. Struck at Alexandria. Cohen VII 484, No. 293.
16	744	Constantius II, 323-61 A.D.	Bronze, 17 mm.	D N CONSTAN Diademed, draped bust to r. Reverse: FEL TEMP RE Emperor in full armor to l. spearing fallen horseman. The exergual inscription is "off flan." Cohen VII 447, No. 45.
17	519	Constantius II, 323-61 A.D.	Bronze, 14 mm.	CONSTAN Diademed, draped bust to r. Reverse: SPES REI Emperor standing facing holding globe in r.

COINS 57

				and resting l. upon spear. In the exergue, ALE. Struck at Alexandria after 350 A.D. Cohen VII 468, No. 188.
18	3131	Constantius II, 323-61 A.D.	Bronze, 14 mm.	Similar to the preceding but very much worn, Exergual letters are "off flan." Cohen VII 468, No. 188.
19	815	Valentinian I, 364-75 A.D.	Bronze, 17 mm.	Illegible. Diademed, draped bust to r. Reverse: SECVRITA Nike advancing to l., holding wreath in outstretched r. Exergual inscription illegible. Cohen VIII 92, No. 37.
20	3119	Valentinian I, 364-75 A.D.	Bronze, 17 mm.	D N VALENTINIANVS P F AVG. Diademed, draped bust to r. Reverse: SECV-RITAS REL Similar to No. 19. In the exergue, ALET. Struck at Alexandria. Cohen VIII 92, No. 37.
21	2699	Valentinian II, 375-92 A.D.	Bronze, 19 mm.	D N VALENTINIANVS P F AVG. Diademed, draped bust to r. Reverse; CONCORDIA AVGGG. Roma, enthroned facing, holds globe in r. and rests l. upon scepter. In r. field, ring. In the exergue, SMRP. Struck at Rome. Cohen VIII 139, No. 9.
22	982	Valentinian II, 375-92 A.D.	Bronze, 19 mm.	Same inscriptions and types as No. 21. In l. field, Θ. In r. field, Φ above K. In the exergue, ANTΔ. Struck at Antioch. Cohen VIII 139, No. 9.
23	579	Theodosius I, 379–95 A.D.	Bronze, 17 mm.	D N THEODOSIVS P F AVG. Diademed, draped bust to r. Reverse: GLORIA RO-MANORVM. Emperor on horseback to r. In the exergue, SMKB. Struck at Cyzicus. Cohen VIII 156, No. 21.
24	1303	Arcadius, 383-408 a.d.	Bronze, 13 mm.	D N ARCADIVS P F AVG. Diademed, draped bust to r. Reverse: SALVS

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			C. BYZA	NTINE
25	Rubbish, Mound A, west	Justinian I, 527-65 A.D.	Bronze, 32 mm.	D N IVSTINIANVS PP AVG. Helmeted bust facing, holding globe in r. and supporting shield with l. In r. field, cross. Reverse: Large K. On I., ANNO. Above, cross. On r., X above III. In the exergue, CAR. Struck at Carthage 539-40 A.D. B.M.C. I 66, No. 380.
26	989	Leo VI, 886-911 A.D.	Bronze, 26 mm.	+LeOhbASILeVSROM'. Bust facing, draped in mantle and robe and wearing crown. Reverse: +LeOh choeObA SILeVSR OMeOh in four lines. Struck at Constantinople. B.M.C. II 447, Nos. 8-10.
		D. Ayyı	BIDS OF H	HALEB (ALEPPO)
27	2319	Ez-Zahir Ghiyath ed-Din Ghazi, 1186-1216 A.D.	Bronze, 23 mm.	in two lines. The surrounding double octogram and marginal inscription are completely obliterated. Reverse: الملك الظاهر in two lines within a double octogram. Around, عبر
28	425	En-Nasir Salah ed-Din Yusuf, 1236–60 A.D.	Bronze, 21 mm.	in three lines within a double circle. Only traces of the third line are visible. Reverse: Reverse Italian Italian Italian In three lines within a double circle. Only the first line is clearly legible. Not in B.M.C. IV.
		E.	Seljuks o	е ек-Вли
29	1733	Kay-Kubad I, 1219-36 A.D.	Bronze, 22 mm.	السلطان المعظم كيقباد بن كيخسرو in three lines. Reverse: المومنين in three lines, الامام الناصر لدين الله partially obliterated. B.M.C. III 74, No. 179.
30	1304	Kay-Kubad I, 1219–36 a.d.	Bronze, 21 mm.	in two lines. Reverse: الامام المستنصر in two lines. Reverse الامام المستنصر in three lines B.M.C. III 74, No. 183 (variety).

COINS 59 in السلطان ل . . . ، د بن | . . . سو 31 3111 (?) Bronze, 22 mm. three lines, partially obliterated. Reverse: in two لا اله الا الله الحمل رسول الله lines above an obliterated third line. Not in B.M.C. III, though compare ibid., p. 87, No. 232. 32 555 Kay-Khusru II, Bronze, 1236-45 A.D. 20 mm. in four محمل رسول الع إ دن الما lines. The second line is separated from the third by three stars. Variety of B.M.C. III 87, No. 232. 1151 Kay-Khusru II, السلطان االاعظم كمخسرو ابن كمقباد 33 Bronze, 1236-45 A.D. 23 mm. in three lines. Reverse: Inscription completely obliterated. Variety not in B.M.C. 2180 Kay-Kawus II. Bronze. Partially obliterated inscription, of which 1245-57 A.D. only the first word, الاصام, is legible, in 25 mm. dotted square. Reverse: Partially obliterated inscription, of which السلطان الاعظم is still legible, in dotted square. B.M.C. III 92, No. 244. 35 566 Kay-Kawus II, Bronze, Similar. Only Wood on the obverse and 1245-57 A.D. 24 mm. on the reverse are still legible. 36 2247 Uncertain Bronze, Completely indecipherable except for the word السلطان on the obverse. Large hole 25 mm. in the center of the coin. 37 988 Uncertain Bronze, Indecipherable, but clearly of Seljuk fabric. 17 mm. Uncertain Indecipherable, but probably Seljuk. 38 2873 Bronze, 21 mm. F. OSMANLI 1097 Suleyman I, Bronze, Star surrounded by six dots, three stars, and 39 1520-66 A.D. 17×14 عز نصره | ضرب :three ornaments. Reverse mm. in two lines above قسطنطنىية and date 944.

B.M.C. VIII 73, No. 184.

PART II

COINS PURCHASED IN THE SURROUNDING DISTRICTS

A. GREEK

			A. ORE	EER.
40*	Yazili Tash	Alexander the Great, 336–323 B.C.	Silver drachma, 3.99 grams	Head of young Heracles to r., wearing lion's skin. Reverse: ΑΛΕΞΑΝΔΡΟΥ on r. Zeus seated to l. on diphros, holding an eagle in outstretched r. and resting l. upon a scepter. In l. field, parazonium. Müller No. 1560.
41*	Yazili Tash	Alexander the Great, 336–323 B.C.	Silver drachma, 5.52(!) grams	Similar to the preceding but of somewhat barbaric style. No symbol or monogram is visible. There is a deep test-cut on the obverse. The inscription reads: ΛΞΝΛΔΟΙ. A barbaric imitation.
42*	Chaush Köi	Ariarathes V, 163-130 B.c.	Silver drachma, 3.82 grams	Diademed head of the king to r. Reverse: BAΣΙΛΕΩΣ APIAPAΘΟΥ ΕΥΣΕΒΟΥΣ. Athene, armed with helmet, spear, and shield, standing facing, holding Nike in outstretched r. In l. field, & . In r. field, E. In the exergue are visible traces of the regnal year (IB?). A variety not in B.M.C.
43	Kaimakamlik of Köhne	Amisus in Pontus	Bronze, 22 mm.	Aegis with Gorgon's head in center. Reverse: AMIZOT in field. Winged Nike advancing to r., holding palm supported by both her hands. On either side a partially obliterated monogram. Waddington I 71, No. 44.
44*	Yazili Tash	Caesarea in Cappadocia: Nero, 52-68 A.D.	Silver hemi- drachma, 1.62 grams	NERO CLAVD DIVI CLAVD F CAESAR [AVG GERM]. Laureate head to r. Reverse: Winged Nike to r., writing upon a shield which she supports on her raised r. knee. Her r. foot rests upon a globe. Cf. B.M.C., p. 47, No. 14.
45	Karaveli	Caesarea in Cappadocia: L. Verus, 161-68 A.D.		AYTOKP OYHPOC C€. Laureate head to r. Reverse: [KAIC]AP€ωN T II APΓAI. Mount Argaeus. In the exergue the regnal date, €T B(?). Cf. B.M.C., p. 70, No. 199.

^{*} Illustrated in Fig. 45.

COINS 61

			B. Rom	AN
46*	Yazili Tash	Diocletian, 284-313 A.D.	Silver denarius, 3.23 grams	DIOCLETIANVS AVG. Laureate head to r. Reverse: PROVIDENTIAE AVGG. The four rulers sacrificing over a burning altar placed before the gate of a walled city. In 1. field, star. In r. field, E. In the exergue, ANT. Struck at Antioch after the reform. Cohen VI 462, No. 427.
47	Karayap	Diocletian, 284–313 A.D.	Bronze, 22 mm.	IMP C C VAL DIOCLETIANVS P F AVG. Draped and radiate bust to r. Reverse: IOVI CONSERVATORI AVGG, Jupiter, resting l. upon a scepter, stands to l. and with r. offers victory to emperor standing to r. Between them, Γ. In the exergue, XXI. Struck at Antíoch. Cohen VI 444, No. 280.
48	Sivri	Diocletian, 284-313 A.D.	Bronze, 22 mm.	Similar inscriptions and types. Between Jupiter and the emperor, TR. Struck at Tripolis. Cohen VI 443, No. 277.
49	Kaimakamlik of Köhne	Maximian, Gal. Val., 292-311 A.D.	Bronze, 25 mm.	GAL VAL MAXIMIANVS P F AVG. Laureate head to r. Reverse: GENIO IM-PERATORIS. Genius standing facing and holding cornucopiae in l. and patera in outstretched r. In l. field, Δ. In r. field, :. In the exergue, MKV. Struck at Cyzicus. Var. Cohen VII 107, No. 49.
.50	Sölemes	Constantine the Great, 306-37 A.D.	Bronze, 22 mm.	IMP C FL VAL CONSTANTINVS P F AVG. Laureate head to r. Reverse: IOVI CONSERVATORI. Jupiter standing facing. He rests l. upon scepter and holds victory in r. At his feet an eagle. In r. field, H. In the exergue, SMK. Struck at Cyzicus between 315 and 317 A.D. Cohen VII 261, No. 283.
51	Yazili Tash	Constantine the Great, 306-37 A.D.	Bronze, 22 mm.	CONSTANTINVS MAX AVG. Diademed head to r. Reverse: LIBERTAS PVBLICA. Victory standing facing upon a galley. She holds a wreath in each of her outstretched hands. In l. field, £. In the exergue, CONS. Struck at Constantinople in 326-30 A.D. Cohen VII 266, No. 319.
	*Illustrated in F	ig. 45.		manager and the specific field

MITTE	LE POTT LE	erritariter.
THE	ALISHAR	HUYUK

62		THE	ALISHA	R НÜYÜK
52	Kaimakamlik of Köhne	Constantine the Great, 306-37 A.D.	Bronze, 18 mm.	CONSTANTINVS MAX AVG. Diademed and draped bust to r. Reverse: D N CONSTANTINI MAX AVG around large wreath; within it, VOT XXX in two lines. In the exergue, SMHA. Struck at Heraclea 324-27 A.D. Cohen VII 243, No. 131.
53	Terzili	Helena	Bronze, 20 mm.	FL HELENA AVGVSTA. Draped bust to r. Reverse: SECVRITAS REIPVBLICE. Helena standing facing and holding branch in r. In the exergue, SMANT. Struck at Antioch 324-26 a.D. Cohen VII 97, No. 12.
54	Chaush Köi	Fausta	Bronze, 20 mm.	FLAV MAX FAVSTA AVG. Draped bust to r. Reverse: SPES REIPVBLICAE. Draped female figure facing, carrying an infant in each arm. In the exergue, SMKA. Struck at Cyzicus 324-26 A.D. Cohen VII 336, No. 15.
55	Chaush Kōi	Constantinopolis	Bronze, 17 mm.	CONSTANTINOPOLI. Helmeted and draped female bust to 1. with scepter. Reverse: Winged victory to 1., placing r. foot upon a prow and holding a shield with 1. and a long scepter in r. In the exergue, SMKF. Struck at Cyzicus 333-37 A.D. Cohen VII 326, No. 21.
56	Alishar	Licinius Sr., 307–23 a.d.	Bronze, 19 mm.	IMP LICINIVS AVG. Laureate bust r. wearing embroidered robe and holding scepter in r. and mappa in l. Reverse: PROVIDENTIAE AVGG. Gate surmounted by three towers. On r., A. In the exergue, SMHA. Struck at Heraclea 317–20 a.d. Cohen VII 203, No. 146.
57	Abujak	Licinius Sr., 307–23 A.D.	Bronze, 18 mm.	Same inscriptions and types except that the bust faces to l. In the exergue, MHTA. Struck at Heraclea 317-20 A.D. Cohen VII 203, No. 145.
58	Kaimakamlik of Köhne	Constans, 333-50 a.d.	Bronze, 15 mm.	D N CONSTANS P F AVG. Laureate head to r. Reverse: GLORIA EXERCITVS. Military standard erect between two sol-

diers. In the exergue, SMKA. Struck at
Cyzicus. Cohen VII 413, No. 59.
D N CONSTANTIVS P F AVG. Dia-
demed, draped bust to r. Reverse: FEL
MENTE DEDITION TO 1

59	Kerkenes Dagh	Constantius II, 323-61 A.D.	Bronze, 20 mm.	D N CONSTANTIVS P F AVG. Diademed, draped bust to r. Reverse: FEL TEMP REPARATIO. Emperor to 1., spearing fallen horseman. In the exergue, SMKΔ. Struck at Cyzicus. Cohen VII 447, No. 46.
60	Chaush Köi	Constantius II,	Bronze, 15 mm.	Similar to the preceding but partially obliterated. In I. field of the reverse, 'M'. In the exergue, CON Struck at Constant nople. Cohen VII 447, No. 45.
61	Sölemes	Honorius, 393-423 a.d.	Bronze, 28 mm.	D N HONORIVS P F AVG. Diademed, draped bust to r. Reverse: GLORIA ROMANORVM. Emperor standing facing holds globe in l. and rests r. upon labarum. In the exergue, SMNT. Struck at Nicomedia. Cohen VIII 181, No. 20.
			C. BYZAN	TINE
62*	Chaush Köi	Mauricius Tiberius, 582-602 A.D.	Bronze follis, 30 mm.	D N mAVRICI TIbER PP AVG. Helmet- ed bust facing, holds globe surmounted by cross in r. and shield in l. Reverse: Large M

		582-602 A.D.	30 mm.	cross in r. and shield in l. Reverse: Large M surmounted by a cross. On l., ANNO (written perpendicularly); on r., ¶III in two lines. Beneath M is B. In the exergue, CON. Struck at Constantinople 590-91 A.D. B.M.C. I 132, No. 51 (var.).
63	Kerkenes	Constans II,	Bronze,	Constans II (on l.), with long beard, and
	Dagh	641-48 A.D.	17 mm.	Constantine IV (on r.), beardless, standing

33	Kerkenes Dagh	Constans II, 641-48 A.D.	Bronze, 17 mm.	Constans II (on l.), with long beard, and Constantine IV (on r.), beardless, standing facing. Between heads, cross. Reverse: Large K. On l., ANNO (written perpendicularly). On r., XXII in two lines. Struck
				ularly). On r., XXII in two lines. Struck at Constantinople 662-63 A.D. B.M.C. I 287, Nos. 261-63.

64*	Kerkenes	Leo IV and	Silver,	IhSUS XPISTUS NICA. Cross potent on
	Dagh	Constantine VI, 776-80 A.D.	1.94 grams	three steps. Reverse: L€On SCOnSt AntIn€€ C⊖€UbA SILIS in five lines
				within three borders of rings. Struck at

^{*} Illustrated in Fig. 45.

64		THE	ALISHA	R НÜYÜK
				Constantinople. B.M.C. II 394–95, Nos. 7–10.
65*	Terzili	Basil I, 867-86 A.D.	Gold solidus, 4.30 grams	bASILIOSETCONStAnt' AUGG b'. Busts facing of Basil (on 1.) and Constantine (on r.) holding between them a long patriarchal cross. Reverse: + IbS XPS REX REGNANTIUM. Christ seated facing on throne. Struck at Constantinople 869-79 A.D. B.M.C. II 436, Nos. 2-4.
66	Kerkenes Dagh	Constantine VII, 913-59 A.D.	Bronze, 28 mm.	Inscription obliterated. Bust facing, wearing crown and holding mappa in r. and globe in l. Reverse: COnST' €nΘ€ObA SIL€VSR Om€On in four lines. This coin has been restruck upon a previous coin of Romanus I, which, in turn, had previously been struck upon a coin of Leo VI. Struck at Constantinople Jan. 27—Apr., 945 a.D. B.M.C. II 463, Nos. 45-53.
67	Kerkenes Dagh	Anonymous	Bronze, 34 mm.	$+\varepsilon MMA \dots$ Bust of Christ facing, flanked by \overline{IC} and \overline{XC} . Reverse: $+IhSuS \mid XRIStuS \mid bASIL\varepsilon \mid bASIL\varepsilon in four lines. Time of Basil II (976-1025 A.D.)? B.M.C. II 488, No. 24.$
68	Kerkenes Dagh	Anonymous	Bronze, 30 mm.	Similar types and inscriptions. John I or Basil II? B.M.C. II 477, Nos. 11–12.
69	Kerkenes Dagh	Anonymous	Bronze, 22×27 mm.	Similar types and inscriptions. Romanus III? B.M.C. II 495, Nos. 4-6.
70	Terzili	Anonymous	Bronze, 28 mm.	Similar obverse type and inscription. Reverse: Large cross on two steps dividing the inscription, IS XS bAS IL€ bAS IL€. Time of Michael IV (1034–41 A.D.)? B.M.C. II 497, Nos. 6–10.
71	Abujak	Anonymous	Bronze, 28 mm.	Similar to the preceding,
72	Kerkenes Dagh	Anonymous	Bronze, 28 mm.	Similar to the preceding.
- 0	Carrier of the same			

^{*} Illustrated in Fig. 45.

COINS

Bronze,

73 Kerkenes

Illustrated in Fig. 45.

Anonymous

65

 $[\epsilon MMA]NOVH\Lambda$. Half-length figure of

	Dagh		24×30 mm.	Christ facing. Reverse: IC XC NI KA in the angles of a large cross. Assigned by B.M.C. II 507, Nos. 6-10, to Theodora, 1055-56 A.D.
		E.	SELJUKS O	F ER-RUM
74	Kerkenes Dagh	Kay-Khusru I(?), 1192-99	Bronze, 18 mm.	Almost completely obliterated on both sides, but certainly a Seljuk coin, as proved by the general fabric and appearance. Faint traces of the horseman type can still be distinguished on the obverse.
75	Kerkenes Dagh	Kay-Kubad I, 1219-36 A.D.	Bronze, 20 mm.	بسمواس(؟) السلطان المعظم اكتقباد in three lines. Reverse: بن كتخسره االمومندن الامام الناصو لدين الدامم in three lines in a hexagram within a circle. B.M.C. III 73, No. 177.
76	Kerkenes Dagh	Kay-Kubad I, 1219-36 a.d.	Bronze, 20 mm.	in two lines, with lines of obliterated in- scription above and below. Reverse: The same inscription, but incuse. A brockage of B.M.C. III 73, No. 177.
77*	Kerkenes Dagh	Kay-Khusru II, 1236-45 A.D.	Silver, dirhem, 2.99 grams	Lion to r., surmounted by sun. In the field, three stars. Above, عالم المستنصر المستنصر المسلطان الاعظم الموسودة. المعروب المحتصور المنا والدين المتحسور في المنا والدين المتحسور in three lines. Above, قمات المنا المنا المتحسود المتحدد ال
	Kaimakamlik of Köhne	Kay-Khusru II, 1236-45 A.D.	Bronze, 26×22 mm,	السلطان الاعظم كنخسرو ا in three lines. Reverse: [الا الله الا الله الحمد رسول in four lines. Variety of B.M.C. III 87, No. 232.

THE	ALISHAR	HILVIE
THE	ALIBITAN	HUIUK

79	Kerkenes Dagh	Kay-Kawus II, 1245-57 A.D.	Bronze, 20 mm.	السلطان للا عظم غمات الداندا in three lines within a square sur- rounded by a circle. Reverse: Completely obliterated.
80	Kaimakamlik of Köhne	(?)	Bronze, 15 mm.	Heraldic lion (or leopard?) to l., surmounted by three dots. <i>Reverse</i> : Vague indications of a bird (?) to r: No inscriptions visible.
			G. SASA	NTAN
81*	Kaimakamlik of Köhne	Ardeshir I, 224-41 A.D.	Silver dirhem, 3.95 grams	Bearded bust of the king to r., wearing a low crown adorned with a diadem and surmounted by a large globe. Around, inscription in Sasanian Pahlavi: Mazdayasn bagi Artakhshatr malkan malka Airan minochitri min yazdan. Reverse: Fire altar. Above, on r., Artakhshatr. Above, on l., Nura zi. Paruck, p. 313, No. 45.

The numismatic results of the excavations of 1927 at the Alishar mound may not be very startling. On the other hand, they are not without a certain amount of historic and archeological interest. In the first place, the catalogue of the coins, both those which were excavated and those which were purchased, offers exactly what might have been expected from a consideration of the geographical situation and the comparative insignificance in later historic times of the little town which once crowned the mound by Alishar.

Central Cappadocia—as contrasted with Pontic Cappadocia—possessed no established mint of its own until the third century B.C. The country was largely mountainous and still in a backward stage of civilization, so different from its former history under the great Hittite Empire. Such trade as existed was doubtless carried on largely by means of barter, while the slight demand for a circulating medium was easily met by various currencies drifting in from the north or south, that is, from the ever active Pontic (i.e., Sinope, Amisus, etc.), Cilician (i.e., Tarsus, Mallus, Soli, Celenderis, etc.), or Pamphylian (i.e., Side, Aspendus, etc.) mints.¹ With the end of the fourth century B.C. the coinage established by Alexander the Great, now appearing in untold quantities in all the great mints of Asia Minor and Syria, tended to supplant the older and now obsolete currencies still circulating in Cappadocia. It is therefore not

66

^{*} Illustrated in Fig. 45.

¹ Cf. the large hoard, composed of Persic staters of Datames, Tarsus and Aspendus, found about 1850 at Caesarea-Mazaca. See *Numismatic Chronicle*, 3d Series, IV (1884), 119, and *ibid.*, note 35. On another hoard see Newell, *The Küchük Köhne Hoard*, "Numismatic Notes and Monographs," No. 46 (New York, 1931).

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surprising that the oldest coin found at Alishar should have been a drachma of the Alexandrine type (No. 1, in this instance, one of those bearing the name of Alexander's half-brother Philip III Arrhidaeus). Similarly, the oldest coins (Nos. 40-41) which were secured by the expedition through purchase from peasants of the surrounding countryside were also Alexandrine drachmas. Of these, one (No. 41) is particularly interesting as seeming to show that in the fastnesses of Cappadocia it took the people some time to accustom themselves to the sudden change from the Persic to the Attic weight standard—the standard which had been adopted by Alexander for his money. The coin in question is indeed a curiosity. Not only is it of local, so-called barbaric manufacture, but it actually weighs 5.52 grams, or exactly the weight of a Persian siglos. Its Alexandrine types would call for a weight of not over 4.20 grams. It is not a forgery, in the strict sense of the word, as it is made of good silver. One of its later owners had apparently questioned this fact and so tested the coin by a chisel blow, only to prove to his own and our satisfaction that the piece is honest metal throughout. What, then, can be the reason for this strange, hybrid piece? Perhaps the most obvious solution is that toward the close of the fourth and the commencement of the third century B.C. the usual influx of coins, all struck on the old Persic system (in the shape of Persic drachms, i.e., sigloi, and staters, i.e., double-sigloi), must have practically ceased, their place now being everywhere taken by the new Alexander coinage. This coinage soon found its way into even innermost Cappadocia, where the new types would soon become well known. But it is not easy so quickly to change the practices of ages, especially in a backward country where peoples are notoriously slow in adopting new-fangled weights and measures. Witness, in our own "enlightened" age the difficulty being experienced in introducing into England and America the metric system, a system which enjoys many obvious advantages. The ancient maker of this hybrid piece was apparently anxious to meet all possible exigencies of trade and so combined the new and now popular types with the old accustomed weight.1

The coins next in date, found at Alishar, are, naturally enough, issues of the Cappadocian kings. No. 2 is one of the very common drachmas of Ariarathes VI and is paralleled by No. 42, a similar coin of his predecessor Ariarathes V, purchased by the expedition from a peasant of Chaush Köi. It is a thousand pities that No. 3 should be in such a deplorably poor state of preservation. To judge by its fabric and the few faint traces of the original types still visible, it appears to be a specimen of the very rare coinages in copper issued by certain

^{&#}x27; In actual fact, this is not a rare phenomenon; a similar practice has been frequently employed in both ancient and more modern times.

of the earlier kings of Cappadocia. It bears some resemblance to a copper coin of Ariamnes (circa 280–230 B.C.) described by Théodore Reinach in his valuable Trois royaumes de l'Asie Mineure, Plate I, No. 5. But the present specimen is so terribly mutilated by wear, and especially by subsequent corrosion, that certainty in the attribution is quite impossible.

The first century B.C. and the first century A.D. still remain, numismatically speaking, entirely unrepresented at Alishar. There is also phenomenally little in this regard from nearby sites. No. 43 is a bronze coin of the Mithradatic period struck at Amisus, at this time a royal residence of the Pontic king. Such coins would inevitably drift down into Cappadocia, especially during the period following 99 B.C. when Mithradates own son, known as Ariarathes IX, held the Cappadocian throne at various times, and his father's empire played a preponderant part in Cappadocian affairs. No. 44, a hemi-drachma of Nero, struck at Caesarea-Mazaca, is the sole representative of the first century after Christ. The second century A.D. comes out but little better with one small Caesarean hemi-drachma of Hadrian (No. 4) from the excavations at Alishar and a Caesarean bronze of L. Verus (No. 45) purchased at Karaveli. The first eighty-five years of the third century furnish only one copper coin (No. 5) from Alishar—a piece bearing the portrait of Philip the Arabian (244–49 A.D.) and struck at Samosata in Commagene.

With the appearance of Diocletian's dynasty and the rehabilitation of administration, finances, and coinage, the coins themselves become very much more common. Not only is this true of the Alishar mound, but it is likewise reflected in the purchases made from the peasants. Whether local conditions had actually become under Diocletian and his successors much more flourishing, or whether, because of smaller size and lesser intrinsic value of the coins themselves, their former owners had grown more careless, only a study of the other remains of the period could perhaps determine. With the exception of the so-called reform-denarius (No. 46) of Diocletian, the coins of the tetrarchy and of the succeeding Constantinian period are not remarkable nor are their types particularly interesting. What is of interest, however, is to note the various mints of the empire that supplied the currency circulating in Cappadocia. For instance, not one of the many mints to the west of the large cities on the Hellespont is represented. Of the twenty-five decipherable specimens, four come from Heraclea Thraciae (Nos. 9, 52, 56, 57) and two (Nos. 51, 60) from its successor, the new foundation of Constantinople. Naturally enough, the Asiatic mints are still better represented: Nicomedia by three (Nos. 8, 11, 14), Cyzicus by eight (Nos. 7, 13, 49, 50, 54, 55, 58, 59), the ephemeral mint at

¹ Appian, Mithradatic War, p. 78; cf. also T. Reinach, Mithradates Eupator.

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Tripolis in Syria by one (No. 48), Antioch in Syria by five (Nos. 6, 10, 46, 47, 53), while Alexandria in Egypt comes out with two specimens (Nos. 15, 17). Thus we see that Cyzicus holds first place, with Antioch second, as a source of supply. Between them these two mints furnish more than half (13 out of 25) of the coins issued between 285 and 361 A.D. found in and around Alishar. If we add to these the six decipherable specimens of the later emperors from Valentinian to Arcadius, we again find more than half (or 16 out of 31) of our coins to be from the combined mints of Cyzicus and Antioch. In view of the fact that Nicomedia furnishes only half as many specimens as Cyzicus, and that, furthermore, Heraclea—though coining for but a portion of our period—presents as many pieces as Nicomedia, it would seem to suggest that at this time the great land trade route from Europe to the East started at or near Cyzicus, even after Constantinople became the capital of the empire. In the same way today, the easiest route, other than railway, from Constantinople to Angora is by water to Mudania, and thence by road directly eastward to Angora.

The century which elapsed between Honorius and Justinian is absolutely unrepresented in the collection brought back by Dr. von der Osten. Of the latter emperor, Alishar furnished one specimen (No. 25); but it is not even certain that this piece actually came from the "dig," as it only purports to have been "found" on one of the rubbish mounds. Of Mauricius Tiberius a coin (No. 62) was purchased at Chaush Köi, while one of Constans II (No. 63) came from Kerkenes Dagh. Then, again, there is a long gap of over a hundred years until we come to the silver asper (No. 64) of Leo IV, 776-80 A.D., also purchased from Kerkenes Dagh. Again about a hundred years elapse before there appears the gold solidus (No. 65) of Basil I, 867-86 A.D., purchased at Terzili Hammam. At Alishar was found but one more Byzantine coin (No. 26), one of the common pieces of Leo VI, 886-911 A.D. The neighboring sites, however, furnished numerous examples of the so-called "anonymous bronze coinage" issued by various emperors from the end of the tenth to the middle of the eleventh century A.D. With these pieces the Byzantine issues found by the Chicago Expedition come to a definite end, thus marking the period of the great Seljuk invasions and their final conquest of eastern Asia Minor at the end of the eleventh century A.D.

With the powerful Seljuk rulers of er-Rum in the thirteenth century our numismatic record once more commences. The great Kay-Kubad I, Kay-Khus-ru II, and Kay-Kawus II are all well represented, both at Alishar and in the district about Kerkenes Dagh. From the latter there comes even one of the famous dirhems (No. 77) of Kay-Khusru II bearing the zodiacal device of Sol in Leo. According to the Arab historian Abu'l-Faraj, this design was adopted

for his coinage by the king in honor of his beloved Georgian wife, who was supposed to have been born beneath that particular constellation.

Mongol domination followed upon that of the Seljuks in eastern Asia Minor, but the period is without numismatic representation among the coins before us—unless it be that the strange piece described under No. 80 is really a Mongol issue. This possible suggestion is partially supported by fabric, type, and general appearance of the piece in question; but, lacking any visible inscription, certainty is out of the question.

The latest coin found at Alishar, and in fact the latest of the entire collection, is the little copper piece (No. 39) of the Turkish sultan Suleyman I, 1520-66 A.D., struck at Constantinople in the year 966 A.H.

Finally, a curiously strayed immigrant from distant Persia was purchased by the Chicago Expedition from a peasant of the Kaimakamlik of Köhne. There is little or no possibility that such dirhems of the Sasanian kings of Persia ever circulated to any extent in Asia Minor, and they are therefore seldom or never found there. The present piece was evidently brought into the country at a subsequent period as a curiosity, or possibly as a charm or amulet. The three holes, two of them even broken out by hard usage, which disfigure the coin are sufficient evidence that the piece had long been worn in some manner by its former owner or owners.

It would be dangerous to form any very definite conclusions, from coins alone, concerning the history of the Alishar mound in classic and later times. Especially is this the case as it has not yet been completely excavated, and further finds might well modify any conclusions, however tentative, that might be made. With this warning clearly understood, the supposition may be hazarded that at no time after the use of money became general in Cappadocia (say in the fourth century B.C.) was our hill the site of more than a rather small country town with a commerce of no very great importance. It is not until the period of the tetrarchy that coins become at all common. This condition lasts only into the reign of Constantius II, when they become scarce once more, almost to cease entirely during the eight hundred years of Byzantine rule. Apparently things became somewhat more flourishing under Seljuk domination, but the site must have been more or less abandoned in late Ottoman times.

That the history of the surrounding countryside varied little from that of Alishar is indicated by the coins brought back by the expedition. But these coins were acquired more or less by chance, and too much weight must not be

^{&#}x27; It is quite possible that throughout classic times the town itself lay in the plain and that the mound was merely the site of a military post or small fortress.

COINS 71

placed upon them. Apparently, however, in Byzantine times some of the neighboring sites—such as Terzili and Kerkenes Dagh—enjoyed a more flourishing state of affairs than Alishar, where Byzantine coins are so conspicuous by their almost total absence. But more than this it would be hazardous to say. A table of the coins found or purchased is here appended:

	Alishar	Yazili Tash	Chaush Kõi	Köhne	Kara- velî	Kara- yap	Sivri	Sölemes	Terzili	Abujak	Ker- kenes
Alexander Cappadocian kings First century B.C	2		1	i		2000				****	10.475
Second century A.D	1	1	64974	*****	1		CC16				****
Early third century A.D Tetrarchy	4	i	****	1		1	1			*****	
sons Later Roman Empire	10* 6	1	3		1414) 1416)				1	1	1
Byzantine: Sixth century Seventh century								rest.			
Eighth century						Cere.					1
Tenth century									i	1	5
Seljuks	2	3500			drast.		34.00	11			0.20
OttomanSasanian					100000000000000000000000000000000000000		9.3	1111		1	

^{*}Including one coin (No. 58) purchased—but not excavated—at Alishar.

APPENDIX

COINS FROM KERKENES DAGH, 19281 (Fig. 46)

1	K 23*	(?)	Bronze, 22 mm.	This coin is so badly corroded that the type has been obliterated on both sides. Its fabric, however, would suggest that it might be one of the common bronze issues of the Pontic cities (Amisus, Gaziura, Sinope, Pharnacia, etc.) under Mithradates VI, 121-63 B.C.
2	K 9*	Apollonia ad Rhynda- cum in Mysia: Trajan, 98–117 a.d.	Bronze, 27 mm.	AYT NEP TPAIAN KAICAP CEBA ΓΕΡΜ. Laureate head of Trajan to r. Reverse: ΑΠΟΛΩ-ΝΙΑ. ΛΛΙΠ(!). Apollo Citharoedus in long robe standing to r. holding lyre in left hand. For a similar specimen and a discussion of the legend cf. H. von Fritze, Die antiken Münzen Mysiens (1913), p. 73, No. 223, Plate IV, 17.

¹ See account of test excavations at Kerkenes Dagh in AJSL XLV (1928/29) 221-74.

^{*} Illustrated in Fig. 46.



Fig. 46.—Coins Found on the Kerkenes Dagh. Actual Size

K 98

COINS 73

	The second of Country		between them. Mint: Nicomedia.
4 (?)	The sons of Constantine. After 337 A.D.	Bronze, 14 mm.	Inscription obliterated. Veiled head of the deified Constantine the Great to r. Reverse: Constantine in quadriga rising to heaven. In the exergue, CONS Mint: Constantinople.
5 K 10*	Constantius II, 323-61 A.D.	Bronze, 15 mm.	DN CONSTA Diademed head of Constantius to r. VOT XX MVLT XXX in four lines in a wreath. Mint name obliterated.
6 K 1*	Period of Valentinian to Gratian	Bronze, 12 mm	Indecipherable. Diademed head of the emperor to r. Reverse: Type and inscription completely obliterated.
7 K 89*	Period of Arcadius?	Bronze, 12 mm.	Head of emperor to r. faintly discernible. Remainder of types and inscriptions completely obliterated.
8 K 81*	Mauricius Tiberius, 582–602 A.D.	Bronze, 30 mm.	DN mAVRIC TIBER PP AVG Helmeted bust of the emperor facing holding globe and shield. <i>Reverse:</i> Large M. On l., ANNO. On r., II II. Beneath 'M', Δ. In the exergue, CON. Mint: Constantinople.
9 K11*	Mauricius Tiberius, 582-602 a.d.	Bronze, 22 mm.	Similar to the preceding. Reverse: Large K. On l., ANNO. On r., GI. Mint: Constantinople.
10 K 98*	Constantine X Ducas and Eudocia, 1059-67 A.D.	Bronze, 32 mm.	Inscription indecipherable. The emperor and empress standing facing and holding labarum between them. <i>Reverse:</i> Inscription indecipherable. Christ standing facing. Cf. B.M.C. II 517, Nos. 18–31.
11 K 8*	Late Roman times	Lead, 22 mm.	Uncertain oblong object in circle surrounded by rays. Reverse: Similar object apparently, but very much obliterated. Pierced at the top. This is probably an amulet.

^{*} Illustrated in Fig. 46.

12 K 23a* Moslem period?

74

Bronze, 19 mm. Lion, leopard or similar animal, with its left forepaw raised, in square to r. Reverse: Plain or with the type completely obliterat-

ed. The flan is very thin.

13 † Kay-Khusru II, 1236-45 A.D. Silver, 22 mm. الامام مستعصم بالله امير المومنين above lion, surmounted by the sun, to r. Reverse: السلطان | الاعظم | كيخسرو | in four lines, surrounded by ضرب هذ | بسيواس | في سنة أربع | ضرب هذ | بسيواس ا في سنة أربع |

^{*} Illustrated in Fig. 46.

[†] Purchased at Shakh Muratli.

V

OTHER SMALL OBJECTS

We catalogue in this chapter various objects of stone, metal, pottery, and bone.

STONE

Numerous stone objects were found in all layers. Diorite, serpentine, limestone, gneiss, slate, flint, and obsidian are commonly used. Semiprecious stones



Fig. 47.—Chalcedony and Obsidian Flakes and Cores. Scale, 1:2

such as agate, onyx, and carnelian appear less frequently and mostly in the later periods (IV-VI).

FLAKES AND CORES (Fig. 47)

Flakes and cores of chalcedony and obsidian were scattered throughout the various levels. Most of the flakes were probably knife blades. Nos. 1558 and 3314 are carefully retouched arrowheads.

(CHALCEDONY					
Field No.	Plot	Depth in Meters				
477	22					
958	36					
1549	V	1				
	75					

٠		٠		á	'n
	۲.	7	٦	L	d

Field No.	Plot	Depth in Meters
1604	V	
1672	VI	1.80
1695	VI	Refuse
1700	VI	
3037	XXIX	4
3301	44	1.10
3304	44	2.50
3308	44	1.80
3321	44	1.40
	OBSIDIAN	
		1 The 105 Or 1

	OBSIDIAN	
Field No.	Plot	Depth in Meters
153	6	100
230	12	
473	22	
750	29	
1016	39	
1043	40	
1046	38	
1388	II	
1493	IV	1
1558	v	Refuse, 1–2
1628	V	
1660	VI	. 80
1701	VI	
1835	VIII	.50-1.50
1904	IX	3.20-3.80
1929	IX	Refuse
2017	X	2.50-3.00
2287	XIII	2.70
2293	XIII	1.40
2334	XIV	2
2344	XIV	2.80
2374	XIV	4
2615	XVIII	3.30
2616	XVIII	Refuse, 2.50-3.50
2867	XXV	1.70
3041	XXIX	4.50
3298	44	1,10
3300	44	1.10
3314	44	. 60
3320	44	1.40
3340	44	1.80
3345	44, Room 1	2
3355	44	3.50

HAMMERS (Fig. 48)

Three principal types could be differentiated.

Field No.	Plot	Depth in Meters	Description
1850	IX	. 40	Two rounded faces with groove in the middle for attachment
1924	IX		Rectangular in cross-section, with slightly convex top. In the middle, at top and bottom,
3289	XXV	2	two flat, round protuberances, perhaps where a perforation should have been drilled Oblong, with rounded faces and nearly circular cross-section. Depression at one side, probably an unfinished perforation



Fig. 48.—Stone Hammers. Scale, 1:3

MACE HEADS (Fig. 49)

Though all the mace heads found, except one, are fragmentary, three main types are clearly distinguishable:

- 1. Round (e.g., Nos. 1871 and 1948), typical of Period I
- Oval (e.g., Nos. 1456 and 3038), found in Stratum II but also in Stratum IV
- Pear-shaped (e.g., No. 792), found in Stratum II but also in Stratum IV

Besides definitely early specimens, mace heads were found even in the Roman stratum. The material is most commonly diorite or prophyry; but limestone, syenite, and hematite occur also.

Field No.	Plot	Depth in Meters
792	30	Uppermost sublevel of Stratum IV
1319		Surface refuse
1456	III	1.50
1580	V	2
1592	V	

Field No.	Plot	Depth in Meters
1855	IX	2.30
1856	IX	1.80
1861	IX	4.50
1870-71	IX	3.80
1948	IX	
1953	IX	2.50
1990	X	2.40
2006	X	3.20
2031	\mathbf{X}	
2129	XI	1

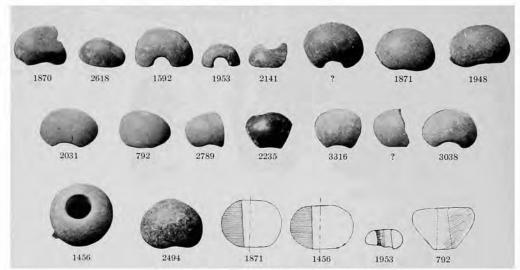


Fig. 49.—Stone Mace Heads. Scale, 1:4

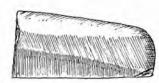
XI	Rubbish
XII	3
XIV	5.40
XV	6
XV	6
XVIII	3.30
XVIII	Refuse, 2.50-3.50
XXIV	2.10
XXV	1.90
XXIX	4.30
XXV	
23	Refuse
44	Refuse, 1-2
44, north room	2
	XII XIV XV XV XV XVIII XVIII XXIV XXV XX

PESTLES AND GRINDERS (Fig. 50)

Some of these pieces may equally well have served other needs.

Field No.	Plot	Depth in Meters
760	29	
1133	43	
1195	46	
1210	46	0-1
1611	V	
2578	XVIII	1.20
2601	XVIII	2







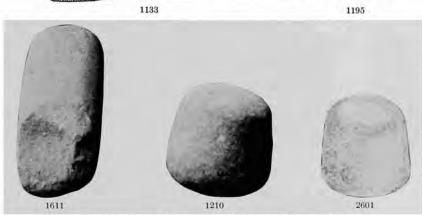


Fig. 50.—Stone Pestles and Grinders. Scale, 1:2

MOLDS (Fig. 51)

Field No. 3286	Plot XIV	Depth in Meters	Description Brittle stone fragment with molds for four axes and some other object cut into five surfaces. Period II. In Chicago
1530	IV	1.50	One half of a grayish limestone mold for a round object. A groove is cut to pour the metal through. The holes in the four corners were presumably for pins to hold the two halves in proper relative position. The back is somewhat rounded. Period uncertain. In Aphere

Field No. 3127

XIX, Room 1

Depth in Meters

Description

Gneiss, one corner lost. The mold, for a round object, is connected by a channel with each of the long edges. Period uncertain. In Andrews

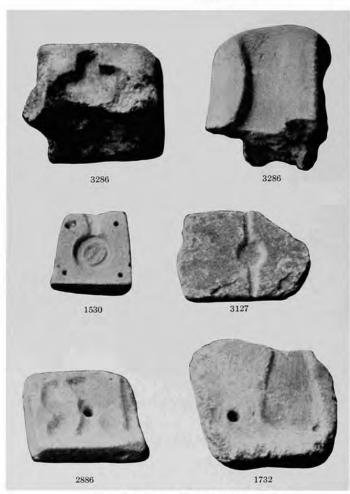


Fig. 51.—Stone Molds. Scale, 1:2

2886	XXV	2.20	Whitish limestone, perforated vertically and horizontally. On one face are three unidenti-
1732	VI	Rubbish	fiable depressions. Period uncertain Fragmentary limestone mold for an ax. The one original corner is perforated. Period un- certain. In Ankara

DRILL HANDLES (Fig. 52)

These tapering objects, with rounded, often perforated, top and a circular depression in the middle of the base, seem to be suited to such use only.

Field No.	Plot	Depth in Meters
1936	IX	1
1968	X	.70
2479	XV	4
3285	VII	Refuse

DRILL CORES (Fig. 52)

Cylindrical stones a little smaller in diameter than the perforations of mace heads etc. were frequent. Their material is usually the same as that of



Fig. 52.—Stone Drill Handle and Drill Core. Scale, 1:2

the hammers, maces, etc. It therefore seems reasonable to consider them cores left by hollow drills. The two flat and rounded pro-



Fig. 53.—Diorite Axes. Scale, 1:2

tuberances on the unfinished hammer No. 1924 (see above) show how such a drill might have been prevented from slipping at the beginning of its task. No. 1649 came from Plot V, depth 1.60.

DIORITE AXES (Fig. 53)

Carefully polished axes appear in almost all the levels, beginning in Period I. Though they are small, they may well have served, especially in earlier times, as actual weapons or implements.

Field No.	Plot	Depth in Meters
213	10	
816	32	
2286	XIII	2.20
2747	XXIII	1.20

HAMMER AXES (Fig. 54)

Two pieces of this type appeared in layers of Period II; but, as the seasons of 1929–31 have shown, this type does not become frequent until early Period V. The large perforation is usually wide at the top.

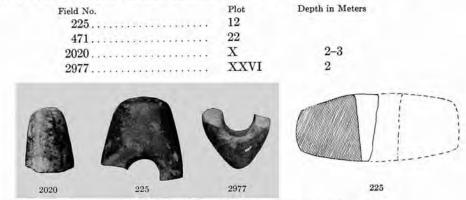


Fig. 54.—Stone Hammer Axes. Scale, 1:2



Fig. 55.—Sandstone Whetstones. Scale, 1:2

WHETSTONES (Fig. 55)

These appear especially in Periods II, IV, and early V. They are usually of fine-grained sandstone, rectangular, sometimes rounded at the ends and perforated at one end for suspension.

Deliversity of the second seco		
Field No.	Plot	Depth in Meters
310	14	
887	35	
2001	X	Refuse
2221	XII	2.70
2360	XIV	4.50
2427	XV	1.50
2607	XVIII	2.70

Field No.	Plot	Depth in Meters
2642	XIX	.40
2721	XXIII	.60
2929	XXV	4.60
3118	XIII	.80

The following slate objects also (Fig. 56) were probably whetstones:

Field No.	Plot	Depth in Meter
474	22	Library Schools
535	23	
1812	VIII	. 40

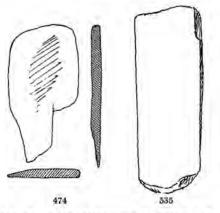
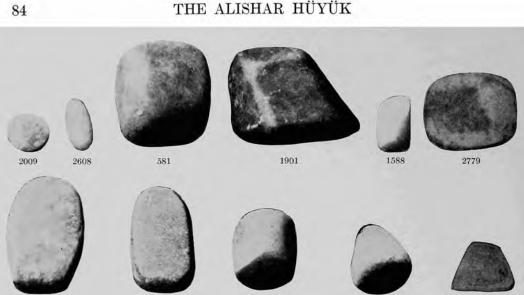


FIG. 56.—SLATE WHETSTONES. SCALE, 1:2

POLISHING-STONES (Fig. 57)

Small stones with at least one polished surface, rectangular, trapezoid, triangular, oval, or round, were probably used for polishing. They formed the largest group of stone implements found, distributed through all periods but relatively rare in Periods I and V–VII. Their material is prevailingly limestone, though diorite, quartzite, and serpentine also occur. We list here only representative specimens.

Field No.	Plot	Depth in Meters
472	22	
531	23	
581	24	
757	29	
794	30	
1588	V	
1603	V	
1860	IX	3.80
1901	IX	2-2.90



1860 Fig. 57.—Polishing-Stones. Scale, 1:2



531

794

STONE WEIGHT No. 1589. Scale, 1:2



2646

757

Fig. 59 DIORITE TOGGLES. ACTUAL SIZE

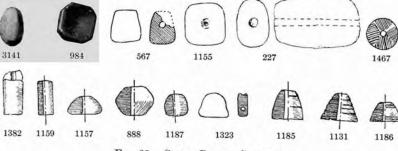


Fig. 60.—Stone Beads. Scale, 1:2

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OTHER SMALL OBJECTS

Field No.	Plot	Depth in Meters
2009.	X	0-2
2608.	XVIII	3.20
2646	XIX	1.80
2779	XXIV	1

SPINDLE WHORLS

Many of the objects which have commonly been called spindle whorls are rather small for that purpose, and I should prefer to consider them large beads or even possibly small weights. This particular group of objects is discussed below under beads. Spindle whorls which can be identified as such are not dealt with among our 1927 materials, since they could not at that time be differentiated by periods.

WEIGHTS (Fig. 58)

Numerous more or less globular stones, sometimes with one or more sides polished, occur at all levels, but most frequently in Periods II and V. They may have had various uses as grinders, pestles, hammers, or polishers. Our workmen, however, called them weights. They told us that in every village there are one or two old men who select, by feel, stones of this sort to serve as standard weights for the village. One example is No. 1589 from Plot V.

DIORITE TOGGLES OF PERIOD II (Fig. 59)

The use of these was explained by our workmen, some of whom were familiar with wooden buttons of about the same shape.

Field No.	Plot	Depth in Meters
1096	42	170
1753	VII	.60
2935	XXV	Refuse, 1-2

BEADS (Fig. 60)

Beads of various sizes have been found in all layers. Semiprecious stones such as carnelian, agate, rose quartz, etc., were used for the smaller ones, and quartzite, diorite, and serpentine for the larger ones.

A very large group consists of truncated conical beads of serpentine decorated with concentric grooves. Such beads have commonly been called spindle whorls, but they seem too small for that use. Can they have been small weights?

Field No.	Plot	Depth in Meters
227	12	
567	22	
888	35	

Field No.	Plot	Depth in Meters
957	. 36	2.1
984	-	Surface
1117	. 42	2-3
1131		
1155		
1157-59	. 45	
1185-87	. 46	
1323		Surface
1382	. II	Refuse
1467		1
3141	****	2.60
		-



Fig. 61.—Stone Pendants. Scale, 1:2

PENDANTS (Fig. 61)

Perforated pendants or amulets are very frequent during all periods. Form and size, as well as material, differ widely. Since in 1927 we were not in position to date these pieces, only a few examples are given here.

Field No.	Plot	Depth in Meters
226	12	
1394	II	1.20
2309	XIV	.80
3182	XXIX	3

AMULETS

One type of small stone object (Fig. 62) was identified as amuletic on the basis of an explanation given by our Turkish workers. Such amulets are in the form of small elongated hematite or onyx beads, perforated or unperforated.

It appears that until recently stones of this type were used by the natives to determine the sex of an unborn child. The amulet is placed between two knife blades. If it turns, the child will be a boy; if not, it will be a girl.

Field No.	Plot	Depth in Meters
987		Surface
995	38	
2913	XXV	1.40

Unwrought stones (Fig. 63), especially bits of rock crystal such as are fre-



Fig. 62 Stone Amulets. Scale, 1:2

quently found on the rather distant Ak Dagh, may have had a magical meaning. The villagers still consider them valuable as talismans, though I have not yet been able to learn their special significance. Since they occur with the remains of all periods, they evidently exemplify a local custom which has

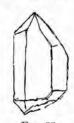


FIG. 63
UNWROUGHT
STONE NO.
1392. ACTUAL
SIZE

survived throughout the ages and in spite of the numerous changes in culture.

Field No.	Plot	Depth in Meters
692	26	
981	30	
1392	II	1.60
1448	III	1.30
1451	III	Refuse
1513	IV	
1594	V	
1745	VII	.30
2040	X	
2675	XX	. 50
2738	XXIII	1.70
2812	XXIV	1
3003	XXIX	1.50
3079	XXX	1-1.80
3087	XXXI	1.80
3109	X	2.50
0100	-3	2.00

MICA FRAGMENTS (Fig. 64)

These fragments, all found in upper levels of Mounds A and B, belong most probably to the end of the first millennium B.C. Their form and the presence

1039b

THE ALISHAR HÜYÜK

of perforations in Nos. 340 and 614 suggest that they may have been parts of windowpanes.

Field No. 229	Plot 12	Field No. 1033	Plot 40
340	16	1039	40, north room
361	17		
528	23		4
614	11		Contract of
			22.00
			1000000000
And the same	400		
	1		



1039a



Fig. 65.—Ser-PENTINE VASE Fragment No. 951. ACTUAL SIZE

VESSELS (Fig. 65)

No. 951 from Plot 36 is a fragment of a serpentine vessel.

614

340

528

DISKS (Fig. 66)

The exact use of many disk-shaped, perforated or unperforated, objects has not yet been determined. One group, however, represented by Nos. 1014–15 from Plot 39, may have been lids for small containers. Other examples of disks are:

Field No.	Plot	Depth in Meters
418	21	
2644	XIX, Room 1	
2892	XXV	1.80
2950	XXVI	.40

MISCELLANEOUS (Fig. 67)

Field No.	Plot	Depth in Meters	Remarks
2295	XIII	2,70	Pliocene fossil ¹
3047	XXIX	5.20	Pliocene fossil
2491	XV	6.20	Example of a spool-shaped object of Period II
704	27		Truncated pyramid of grayish white stone with two perforations (one vertical) at right angles to each other; edges grooved; all surfaces except top pitted with shallow, irregularly placed holes; sides roughly crosshatched with incised lines

¹ Similar fossils occur at such points as Inevi and Dedik.

Field No.	Plot	Depth in Meters	Remarks
1350	50/51		Roughly rectangular; perforated in the middle, polished
2220	XII	2.60	Unfinished lid?
3327	44	1.50	Serpentine, elongated, with oval cross-section.

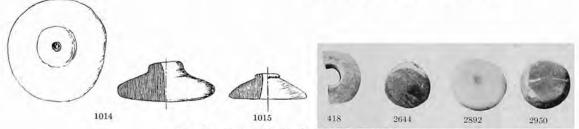


Fig. 66.—Stone Disks (Lids?). Scale, 1:2

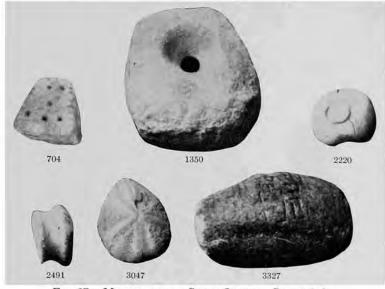


Fig. 67.—Miscellaneous Stone Objects. Scale, 1:2

METAL

COPPER AND BRONZE

Though we do not yet know exactly when bronze was introduced, it was probably during Period II.¹

¹ [If Period III preceded Period II (cf. p. vii, n. 3), then to the former presumably belongs the introduction of bronze. However, one pin of Period I, from Plot IX, depth 3.60, found during the 1928–29 seasons, contained 10.6 per cent tin; i.e., it was bronze.—Editor.]

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Arrowheads (Fig. 68)

TANGED WITH RECTANGULAR CROSS-SECTION (PERIOD II AND LATER)

Field No.	Plot	Depth in Meters
444	21	1.50
1366	50/51	
1655	VI	Refuse
2736	XXIII	1.70
3018	XXIX	2.40
3024	XXIX	2.50
3136	XV	Refuse

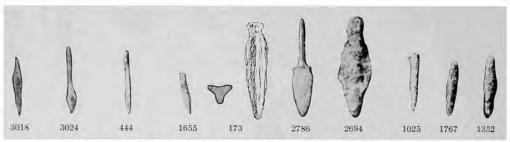


Fig. 68.—Copper or Bronze Arrowheads. Scale, 1:2

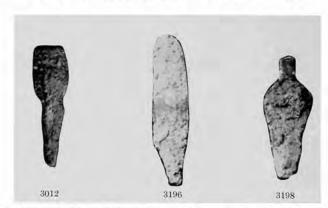


Fig. 69.—Copper or Bronze Lance or Dagger Blades. Scale, 1:2

SOCKETED WITH TRIANGULAR CROSS-SECTION (PERIOD IV)

173	8	
2545	XVII	1.20
LEAF-SI	HAPED (PERIOR	v)

2694......XXI 1.70 2786.....XXIV 1

SMALL CORRODED

Field No.	Plot Depth in Meters
1025	. 40
1352	
1767	VII 1.60
2790	7777777
3007	XXIX 2



Fig. 70.—Copper or Bronze Axes. Scale, 1:2

Lance or Dagger Blades (Fig. 69)

Field No.	Plot	Depth in Meters
3012	XXIX	2.40
3196		. 60
3198	XXIV	1.70

Axes (Fig. 70)

CHISEL-SHAPED (AFTER PERIOD I)

Field No.	Plot	Depth in Meters
1377	II	Deptu in Meters
1844	IX	.90
2348	XIV	2.90

91

Field No. 2757	Plot XXIII	Depth in Meters Rubbish, 1-1.50
2939	XXV	3.30
3080	XXX	2
3197	XXIV	1

WITH TUBULAR ATTACHMENT (PERIOD II)

1202	46	
1572	V	1.70
1942	IX	1
2262	XIII	1.30
2445	XV	2.50



Fig. 71.—Copper or Bronze Points. Scale, 1:2

2891	XXV	1.80
2909	XXV	3
3075	XXX	1.40

LARGE BATTLE-AX

Field No.	Plot	
831	32	

Points, Perhaps for Drills (especially Period V, Fig. 71)

Field No.	Plot	Depth in Meters
1007	39	
1841	IX	1
2219	XII	2.60
2358	XIV	4.30
2422.	XV	1.30
2657	XIX	Refuse
2665	XIX	3.50

92

Field No.	Plot	Depth in Meters
2785	XXIV	1.50
2908	XXV	3
2919	XXV	Rubbish, 0-1
2974	XXVI	Rubbish, 50-1

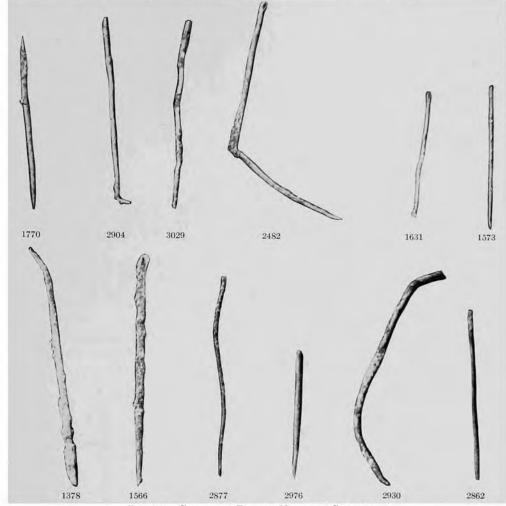


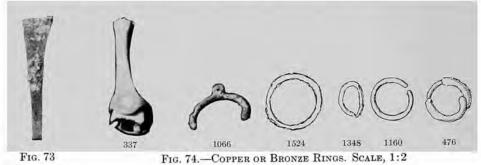
Fig. 72.—Copper or Bronze Needles. Scale, 1:2

Needles (especially Periods II and V, Fig. 72)

The eye is in most cases formed by flattening one end and bending it over.

Field No.	Plot	Depth in Meter
1378	II	
1548	V	Refuse, 0-1

Field No.	Plot	Depth in Meters
1566	V	1.10
1573	V	2
1631	V, Pit 9	
1770	VII	1.30
2320	XIV	1.60
2482	XV	5
2862	XXV	1.50
2877	XXV	2
2904	XXV	3.80
2930	XXV	3.50
2976	XXVI	2
3029	XXIX	2.50



COPPER OR BRONZE TWEEZER FRAGMENT No. 2879.

SCALE, 1:2

Tweezers (Fig. 73)

Only two fragments were found:

Field No.	Plot	Depth in Meters
2879	XXV	Refuse, 1-2
2958	XXVI	.80

RINGS (Fig. 74)

1011	(us (1.18.	11/
Field No.	Plot	Remarks
337	16	Finger ring
476	22	Iron core with bronze plating
622	25	Fragment of bracelet
791	30	Bracelet
1066	41	
1160	45	Finger ring
1348	50/51	Earring
1524	IV	

Pins (Fig. 75)

A few pins, probably of copper but badly corroded, were found in Stratum I. Their heads are mostly globular, slightly flattened at top and bottom. The

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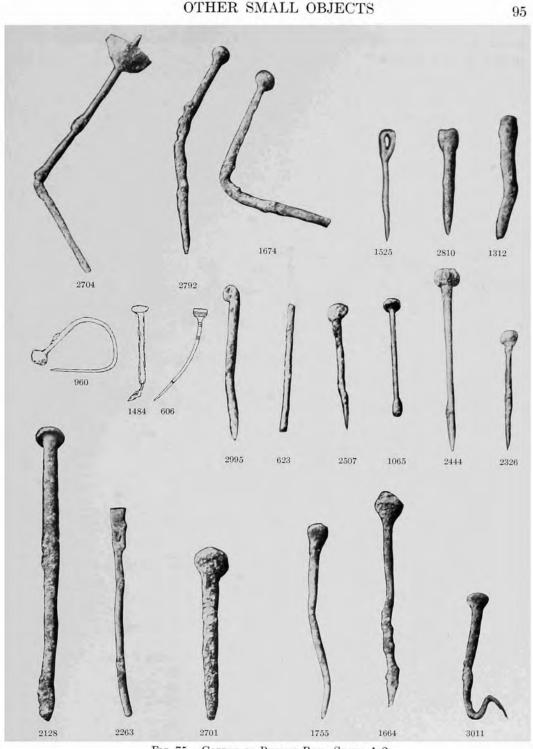


Fig. 75.—Copper or Bronze Pins. Scale, 1:2

bronze pins belong chiefly to Periods II and V. Those listed below include the principal types of heads.

V 1		
Field No.	Plot	Depth in Meters
117	5	
606	24	
618	12	
623	25	
960	36	. 10
1065	41	
1098	42	
1198	46	
1311-12		Surface
1389	II	1.30



Fig. 76.—Copper or Bronze Fibulae. Scale, 1:2

1484	IV	1
1504.	IV	
1525	IV	
1619	V	
1664	VI	1.20
1674	VI	1.60
1755	VII	1.70
1933	IX	.30
2000	X	3
2128	XI	.95
2182	XII	1
2263	XIII	Refuse
2326	XIV	1.80
2376	XIV	4.20
2444	XV	2.50
2460	XV	2.70
2507	XV	Rubbish, 6-6.50
2701	XXII	.90
2704	XXII	Rubbish, 0-1.20
2780	XXIV	.80
2792	XXIV	2.10
2809.	XXIV	3.40

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Field No.	Plot	Depth in Meters
2810	XXIV	3.20
2874	XXV	2.50
2940		4.50
2995	XXVIII	2.20
3011		2.40
3051.		Rubbish, 3, 50-5

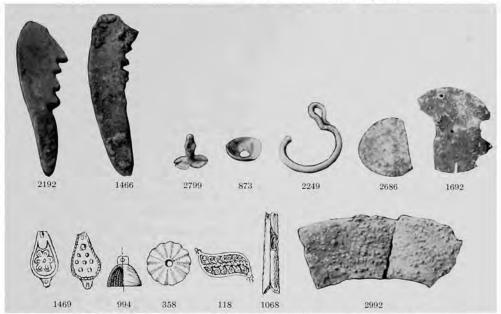


Fig. 77.—Miscellaneous Copper or Bronze Objects. Scale, 1:2

Fragments of Fibulae (Fig. 76)

		CURVE	D PARTS
Field No.	Plot	Depth in Meters	Remarks
1027	40		Wire rectangular. Early Period V
1475	IV	1.70	Late Hellenistic or Roman
3000	XXIX	Refuse,	Late Hellenistic or Roman
		1-1.50	
1099	42		
2855	XXV	.80	
3089	XXXI	1.50	
		STRAIGI	HT PARTS
269	13		
2266	XIII	Refuse	
2876	XXV	2	

		MISCELLAN	EOUS (Fig. 77)
Field No.	Plot	Depth in Meters	Remarks
1466	IV	.30	Saw-shaped
2192	XII	Refuse	Saw-shaped
118	5	Surface	Turkish
358	17		Turkish
873	34		
994	38	. 50	
1068	41		
1469	IV	.30	
1692	VI	Refuse	
2249	XIII	.70	
2686	XXI	1	
2799	XXIV	2.40	Cross-shaped
2992	XXVIII	1.50	Curved
1127 (Fig. 78).	43	.60	Handle: acanthus leaf rising from a grape leaf perforated for attachment and bearing face of a satyr

IRON (Fig. 79)

Iron objects, all badly corroded, occurred chiefly in the upper levels; none were earlier than Period IV. Weapons, implements, and ornaments were found. Among them were arrowheads (e.g., No. 442), spearheads (e.g., No. 974), a dagger fragment (No. 246), a knife fragment (No. 1100), an ax blade (No. 1022), an awl (No. 1739), nails (e.g., No. 1759), keys (e.g., No. 1102), a horse-shoe fragment (No. 1757), a bolt (No. 1110), a rivet (No. 669), a thick wire (No. 1605), rings (e.g., No. 1314), and a hook for a belt (No. 756). The presence of slag (e.g., No. 131) and pig iron (No. 271) indicates that the ancient inhabitants made iron weapons and implements for themselves.

Plot	Depth in Meter
. 5	
. 11	
. 12	
21	
	5 6 9 11 12 12 13 4 17 21 21 22 22 22 23 23 23



Fig. 78.—Copper or Bronze Handle No. 1127. Scale, 1:2

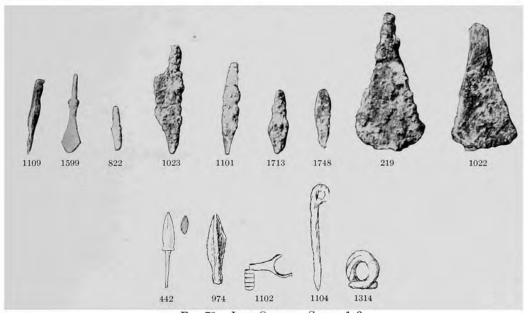


Fig. 79.—Iron Objects. Scale, 1:3

Field No.	Plot	Depth in Meters
619-21	25	
658	25	
668-69	26	
707	27	
731	28	
756	29	.50
	32	.50
822		1 50
834	33	1.50
867	26	
874	34	
902	35	
919	35	
953	36	5.4
955	36	.30
956	36	.20
974	37	. 50
997	38	
1022-23	40	
1028	40	.40
1044	40	
1049	39	
1067	41	
1100	42	1.20
1101-4	42	
1109-10	42	
1123-24	42	
1137	43	
1173	45	
1177	45	
1197	46	
1205	46	
1314		Mound A, dump heap
1333	47	
1351	50/51	
1365	50/51	
1541	V	. 10
1598-99	v	
1605	v	
1693	VI	Refuse
1713	VI	rectuse
1739–40	VII	.10
1748	VII	.40
1750	VII	
1757	VII	1
1759	VII	1
1100	A 111	Ť.

Field No.	Plot	Depth in Meters
1780	VII	. 50
1802	VIII, room	
1804	VIII, room	
1816	VIII	.30
1818-19	VIII	. 50
1821-22	VIII	.30
1824-25	VIII	.30
1826	VIII, room	
1834	VIII	.50-1.50
1880	IX	030
1886-87	IX	.30~.60
1971	X	.80
2014–15	X	2.20-2.50
2179	XII	1
2186	XII	1
2206	XII	1.40
2209	XII	1.50
2246	XIII	.80
2268	XIII	Refuse
2278	XIII	Refuse
2292	XIII	Refuse
2297	XIII	2.80
2306	XIII	
2322	XIV	1.60
2406	XIII	Refuse
2421	XV	1.30
2526	XVI	. 40
2533	XVII	. 20
2539	XVII	.60
2567	XVIII	.20
2569	XVIII	.20
2671	XX	.15
2672	XX	.20
2674	XX	. 50
2685	XXI	. 50
2707	XXII	1.50
2722	XXIII	. 60
2724	XXIII	. 80
2727	XXIII	1.10
2728	XXIII	Refuse, .50-1.00
2729	XXIII	1.50
2734	XXIII	1.50
2745	XXIII	1.20
2759	XXIII	2
2770	XXIV	Refuse, 050

Field No.	Plot	Depth in Meters
2771	XXIV	. 60
2773	XXIV	.80
2774	XXIV	Refuse, 0-1
2775–76	XXIV	1
2787	XXIV	1.50
2808	XXIV	Refuse
2811	XXIV	Refuse
2815	XXIV	3.30
2828	XXV	1.10
2830	XXV	1.10



Fig. 80.—Gold-plated Iron Ring No. 1196. Actual Size

2864	XXV	1
2982	XXVII	.40
2988	XXVIII	.30
2989	XXVIII	Refuse, 050
2993		1.50
3065	XXX	.70
3068	XXX	1.10
3306	44	2.20
3354	44	1.50

GOLD (Fig. 80)

The only gold found was in the plating of an iron ring. This ring, No. 1196, found in Plot 46 at a depth of 1.50, is rectangular in cross-section. It had been broken in two.

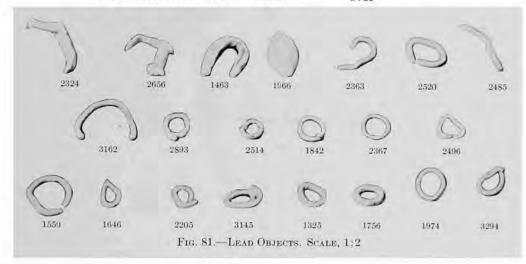
LEAD (Fig. 81)

Objects of lead occurred as far down as Stratum II. In fact, they were commonest in Period II. A small bird figure (No. 3195) has been mentioned on page 41.

POT-MENDERS

Broken pottery jars were often mended with lead wire, especially during the first millennium B.c. and in Romano-Byzantine times. A vessel thus mended (No. 3238) is illustrated in *OIP* VI, Figure 231.

Field No.	Plot	Depth in Meters
1463	IV	. 80
2324	XIV	1.70
2656	XIX	Refuse, 1-2
3013	XXIX	2.40



MODERN BULLETS

Field No.	Plot	Depth in Meters
2945	XXVI	. 10
3070	XXX	.90

"RINGS"

Among the commonest lead objects, all of them found in Stratum II, are crude rings, sometimes open, sometimes with their ends overlapping. The so-called "Cappadocian tablets" tell us that lead was then used as currency. Hence these rings may have been the small change of their time. The diameter of the wire in them varies from .002 to .0025.

Field No.	Plot	Depth in Meters
1325	30	
1387	II	1
1550	V	1
1646	V	Refuse
1756	VII	1

Field No.	Plot	Depth in Meters
1799	VII	Refuse
1842	IX	.40
1974	X	1.10
2205	XII	1.40
2363	XIV	Refuse
2367	XIV	3.70
2492	XV	6.30
2496	XV	5.80
2503	XV	5.80
2514	XV	5
2520	XV	5.80
2653	XIX, Room 2	Refuse
2893	XXV, Pit 3	

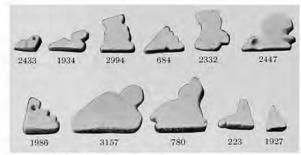


Fig. 82.—Wrought Sherds. Scale, 1:3

3043	XXIX	Refuse, 3.50-5
3145		Refuse, 5-6
3162	XXI	1.20
3294	XXIII. Room	2

MISCELLANEOUS

Plot	Depth in Meters	Remarks
21		
VIII	.30	Perforated
VIII	2	Period II
XV	5.30	Pin
44, Room 1	2	
	21 VIII VIII XV	21 VIII .30 VIII 2 XV 5.30

POTTERY

WROUGHT SHERDS (Fig. 82)

These sherds are all ground into various forms. Some of them resemble conventionalized animals. No. 3157 illustrates the commonest type. All the wares yet found at Alishar are represented, though such pieces are rather rare in

the lower strata and are most frequent in Periods V and VI. Perforations or decorative grooves are sometimes present. Some of these pieces were perhaps used as inlays.

Field No.	Plot	Depth in Meters
200	9	
203	9	
223		
256		
288		
684		
001	20	
	13	
	1 3	E al
	1	
2 4	/ 3	W)
1-10		
F1G. 83	Fig. 84	1182 1152
	POTTERY PESTLE	Fig. 85
POTTERY "HORNED ALTAR" MODEL(?) No. 1489.	No. 763.	POTTERY SPINDLE WHORLS.
SCALE, 1:2	SCALE, 1:2	SCALE, 1:2
conin, 1.2		
758	29	
780-81	29	
1360-61	50/51	
1927	IX	Refuse
1934	IX	. 60
1935		1
1986		2.20
2030	X	
2276	XIII	1.70
2332	XIV	1.90
2412	XV	,40
2433		2
2447	XV	2.50
2916	XXV	3
2994	********	1.80
3059	XXX	.40
3157	WESTERN.	1.25

"HORNED ALTAR" MODEL? (Fig. 83)

No. 1489 was found in Plot IV at a depth of 2.20. Several similar pieces, but much larger, were found during 1928–29 in Strata I and II.¹ They may have been used in bull worship, resting upon the altar proper. A cylinder seal found in 1929 illustrates such an arrangement.

PESTLE (Fig. 84)

No. 763 was found in Plot 29.

SPINDLE WHORLS (Fig. 85)

Several seasons were required to differentiate the whorl types of the various periods. Hence in this 1927 report we mention the whorls very briefly. It turned out that the most interesting group of pottery spindle whorls belonged to Period III. They are variously, often elaborately, ornamented. The two principal shapes of that period are illustrated by

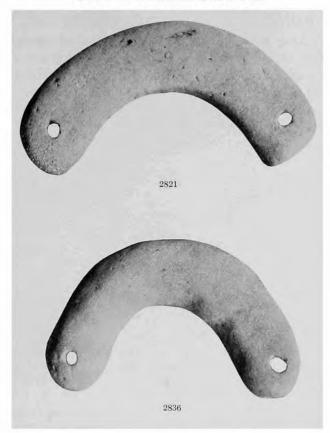
Field No.	Plot	Depth in Meters
1152	44	
1182		1

"HANDLES" (Fig. 86)

These were found almost exclusively in Stratum II. Heavy wooden weights similarly shaped are now used as loom weights in certain districts of Central Anatolia. "Handle" 1468, stamped with a seal impression, is illustrated in Figure 44.

Field No.	Plot	Depth in Meters
464	21	Tribes in our min
1393	II	
1425	II	
1468	IV	1
1509	IV	
1578-79	V	1.50
1610	V	
1647	V	. 80
1689	VI	Refuse
1706	VI	
1898	IX	2-2.90
2013,	X	2.20-2.50
2145	XI	2.60
2169	XI	13077
2226	XII	2.10
2821	XXV	.30
2834	XXV	1.50
2836-38	XXV	1

See OIC No. 11, pp. 106-7.



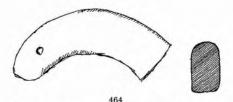


Fig. 86.—Pottery 'Handles." Scale, 1:2

CRUDE CLAY AND POTTERY RINGS (Fig. 87)

These were found in all the strata. Pottery rings which served as net-sinkers were found by Dr. Conrad Preusser at Khafaje in 1930. Some of our rings may have served the same purpose, though we have no other evidence of fishing at Alishar. At any rate, the mound seems once to have been surrounded by water. Others of our rings may have been loom weights. The rings vary between .055 and .125 in diameter and between .04 and .08 in height.

in diameter an	d betwe	een .04 and .08	in height.
Field No.	Plot	Depth in Meters	Remarks
126	6		
248	12		
273	13		
338	16		
1	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
0			
Fig. 87.—Por	TERY	Fig. 88.—Pot-	Fig. 89.—Por
RING No. 338. Sc	CALE,	TERY WEIGHT NO.	
1:2		468. SCALE, 1:2	1928. Scale, 1:2
426.	21		
538.	23		26 pieces found together
586	24		9 pieces found together
587	24		5 pieces found together
630	25		5 pieces found together
663	26		
689	26		
695	27		
738	27		
854	33		
908	35, Roo		
945	29	Refuse	
1070	41		
1169	45		3 pieces found together
1170	45		
1207	46	0-1	2 pieces found together
1328	38		- Present round together
1459	III		
2233	XII	3	
2408.	XIII	Refuse	
3165	XXIV	.10	
9190	TITLY	.10	

RECTANGULAR WEIGHT (Fig. 88)

No. 468, of crude clay, was found in Plot 22.

BALLS (Fig. 89)

These appeared chiefly in Strata I–III. Many show ornamentation, either incised or pricked. Only a few are perforated. The latter may possibly have been beads. The rest were perhaps toys. They vary between .022 and .035 in diameter.

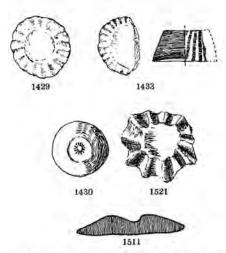


Fig. 90.—Pottery "Cakes." Scale, 1:2

Field No.	Plot	Depth in Meters
421	21	
629	25	
1076	41	
1515	IV	
1854	IX	1.80
1857	IX	2.20
1873	IX	Refuse
1928	IX	Refuse
2025	X	3.10-3.50
2284	XIII	1.80
2359	XIV	4.50
2575	XVIII	Refuse
2587	XVIII	1.30
2666	XIX	4.20
2735	XXIII	1.50

"CAKES" (Fig. 90)

These were found almost exclusively in Stratum II. They were possibly toys, or they may have had magical significance.

Field No.	Plot	Depth in Meters
1383-84	II	Refuse
1401-7	II	
1428-34	II	
1481	IV	1.60
1483	IV	1
1486	IV	Refuse
1490	IV	2
1511-12	IV	
1521	III	
1547	V	. 80
1559-60	V	Refuse, 1-2
1595	V	
1620	V	
1624	V	
1632,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	V, Pit 9	
1637	IV	
1657	VI	1.20
1702	VI	
2389	XIV	5
2428	XV	1.50
2465	XV	3.30
2468	XV	Refuse, 2-3.50
2517	XV	5.80
2521	XV	6
2538	XVII	.60
2835	XXV	1.20
2872	XXV	
2903	XXV	Refuse, 2-3
2955	XXVI	Refuse, 040
3028	XXIX	3

CRUDE BEADS (Fig. 91)

Such objects, found in all layers, were probably worn in necklaces.

Field No.	Plot	Depth in Meters
889	35	
1047	38	
1140	43	
1306		Mound A, refuse
1321		Surface
1485	IV	.90

DISKS (Fig. 92)

These disks, ground out of sherds, were more frequent in Periods V and VI than earlier. All kinds of wares were used in them. The disks vary in diameter between .013 and .024. Those that are perforated may have been strung and worn as amulets. The children of neighboring villages still wear such disks in their necklaces. The unperforated pieces may have been toys. No. 1040 seems to have been made from a fragment of a large pithos ornamented with a broad raised band.

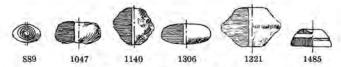


Fig. 91.—POTTERY BEADS. SCALE, 1:2

	PERFORATED	
Field No.	Plot	Depth in Meters
41	. 3	
56	. 2	
61	. 2	
69		
172	. 8	
214	. 10	
356	. 17	
605	. 24	
628	. 25	
634	. 25	
664	. 26	
729	. 28	
852	. 33	
918	. 35, Room 2	
927	. 26	Refuse
934-35	. 29	Refuse
1032	. 40	
1069	. 41	
1111-12	. 42	
1171	. 45	
1357	50/51	
1375	. I	
1415	. II	
1417-18	. II	
1499	IV	
1668	VI	1.50

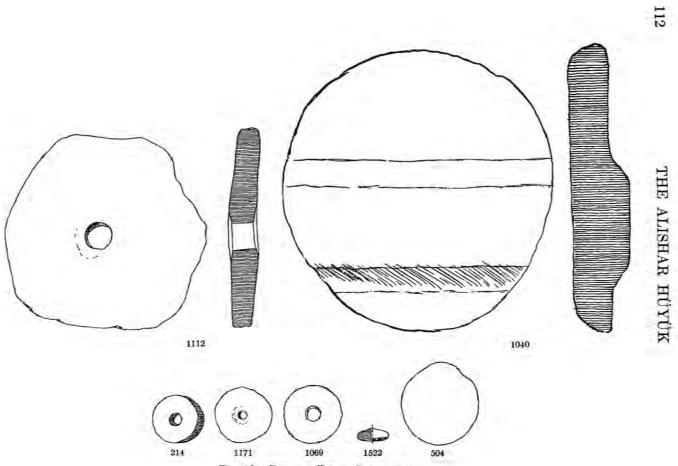


Fig. 92.—Pottery Disks. Scale, 1:2

Field No.	Plot	Depth in Meters
1708	VI	
2163	XI	
2500	XV	5.70
2632	XVIII	3.40
Un	PERFORATED	
Field No.	Plot	Depth in Meters
14	1	
42	3	
82	4	
102	5	
142	7	
145	7	
285	13	
504	22	
670	26	
730	28	
853	33	
1040	40, Room 1	
1048	39	
1107	42	1.80
1118	42	
1391	II	.70
1416	II	
1498	IV	
1522	III	
1709	VI	
1752	VII	.50

2165.....

2181.....

2318.....

2546.....

3108.....

"STARS" (Fig. 93)

XI

XII

XIV

XVII

XIX

X

1

1.50

1.30

1.70

1.50

These were found almost exclusively in Stratum II. Like many of the disks, they may have been amulets worn as pendants.

Field No.	Plot	Depth in Meters
1553	V	1.10
1754	VII	.60
1940	IX	1
1947	IX	
1964	VIII	1.40
2361	XIV	4.30
2871	XXV	2

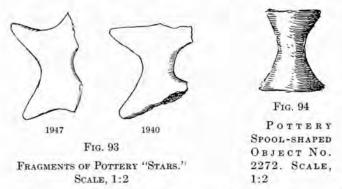
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SPOOL-SHAPED OBJECTS (Fig. 94)

Field No.	Plot	Depth in Meters
1778	VII	050
2272	XIII	2.30
2800	XXIV	Refuse, 2-3
2814	XXIV	2.80

BONE

Bone tools and implements, ornaments, and numerous objects of uncertain use were found. Certain tanged points and other similar pieces are suitable for arrows; but the fact that the heads of most of them are polished perhaps in-



dicates use as tools. Awls, a knife handle, a spatula, and a shuttle also occurred. Ornaments consisted of very numerous pins, a ring fragment, and possibly pendants. Among objects the functions of which are not clear were tubes, a tiny box, perforated bones, slips, a model leaf, and a fragment of an ornamented plaque(?).

As to date, the plain awls are mostly of Period I. The points and pins are quite characteristic of Period II. To it are dated also the decorated awl No. 1395, the tube No. 2512, the circular boxes Nos. 2356 and 2489, and probably the finger ring No. 2329. Such perforated animal vertebrae as No. 1363 seemed to occur throughout, and are still used like knucklebones by the modern Turks. The knife handle No. 1774 is perhaps of relatively recent origin.

POINTS (Fig. 95)

Field No.	Plot	Depth in Meters
1479	IV	1.50
1765	VII	Rubbish, 1-1.50
2132	XI	Rubbish
2151	XI	Rubbish

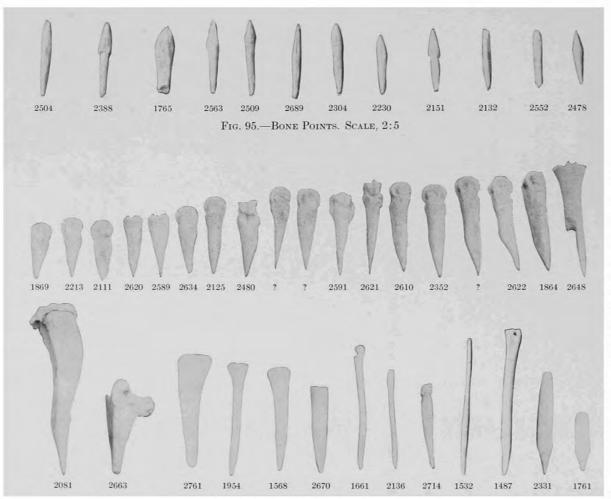


Fig. 96.—Plain Bone Awls. Scale, 1:3

Field No.	Plot	Depth in Meters
2230	XII	Rubbish
2304	XIII	
2388	XIV	Rubbish, 4-5
2478	XV	Rubbish, 3-4
2504	XV	5.80
2508	XV	6
2509	XV	Rubbish, 5-6
2552	XVII	Rubbish, 1-2
2563	XVII	2.80
2689	XXI	1.20

AWLS

As a rule, these were made from sheep bones.

PL	AIN (Fig. 96)	
Field No.	Plot Depth i	n Meters
754	29	
1320		Mound A, rubbish
1487	IV	2.50
1532	IV	1
1568	V	1.60
1661	VI	.80
1761	VII	1.50
1862-63	IX	4.50
1864-65	IX	4 30
1868	IX	4
1869	IX	3.60
1872	IX	Rubbish
1930	IX	Rubbish
1954	IX	3
1976	X	1.50
2081	X Strat. Annex, NW.	2.04-2.21
2086	X Strat. Annex, NE.	2.72-2.89
2093	X Strat. Annex, NE.	3.23-3.40
2094-95	X Strat. Annex, SW.	3.40-3.57
2111	X Strat. Annex	Rubbish, 085
2113	X Strat. Annex	Rubbish, 0-1.50
2123	X Strat. Annex, trench	3.50-4
2125	X Strat. Annex, trench	4-4.50
2136	XI	1.40
2148-49	XI	3.50
2173	IX	Rubbish
2213	XII	2.10
2231	XII	Rubbish
2236	XII	3

Field No.	Plot	Depth in Meters
2237	XII	Rubbish
2288	XIII	3
2331	XIV	1.90
2345	XIV	2.80
2352	XIV	3
2387	XIV	4.80
2443	XV	2.40
2472	XV	3.70
2480	XV	Rubbish, 4-5
2518	XV	5.80
2548	XVII	1.40
2589	XVIII	1.40
2591	XVIII	1.50
2596	XVIII	1.80
2609	XVIII	Rubbish, 2.50-3
2610	XVIII	3.20
2619	XVIII	2
2620	XVIII	3.50
2621-22	XVIII	2
2633	XVIII	3.50
2634-37	XVIII	3.80
2638	XVIII	Rubbish
2648	XIX	2
2663	XIX	3.50
2670	XX	. 10
2684,	XXI	. 50
2714	XXII	2.30
2761	XXIII	2

Elaborate (Fig. 97)

The following specimens are particularly well finished or bear ornamentation. Nos. 416, 534, 1395, 2130, and probably 1057 and 2554, are of ivory.

Field No.	Plot	Depth in Meters	Description
416	21		Cross-shaped incision on head
534	23		Rectangular toward head; head lost from perforation upward
1057	40		Highly polished; head lost
1165	45	1.60	Rectangular toward head; .215 long
1395	II	1	Incised bands of ornamentation include cross- hatching; point lost. Period II
2130	XI	1	Head rounded
2554	XVII	1.80	Head expanding, flattened on top; central section lost; originally perhaps .30 long

OTHER IMPLEMENTS (Fig. 98)

Field No., 1774	Plot VII	Depth in Meters 050	Description Knife handle, grooved .035 deep at one end to take blade, which was held in place by an iron rivet, part of which remains. Concave edge is grooved .007 deep for remainder of
2325 2731	XIV XXIII	1.90 1.80	length Shuttle Spatula

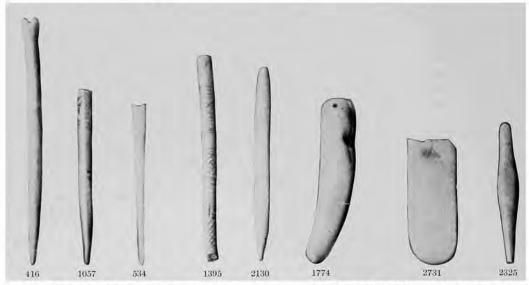


Fig. 97.—Elaborate Ivory Awls. Scale, 1:2

 $\begin{array}{c} {\rm Fig.\,98. - Bone\,Knife\,Handle, Spatula,} \\ {\rm and\,Shuttle.\,\,Scale,\,1:2} \end{array}$

PINS (Fig. 99)

Most of the pins were found in the eastern and northern terrace plots where Stratum II prevailed. Their heads are usually circular disks; but globular, oval, conoid, rectangular, star-shaped, and bud-shaped heads occur. The head of No. 1989 is carved to represent the heads of four dogs or buffaloes, one facing in each direction. That of No. 1381 is carved into two animal heads back to back. The use of these pins is uncertain. They seem best suited for fastening garments.

Field No.	Plot	Depth in Meters
1349	50/51	
1379-80	II	
1381	II	Rubbish
1385	II	1.30

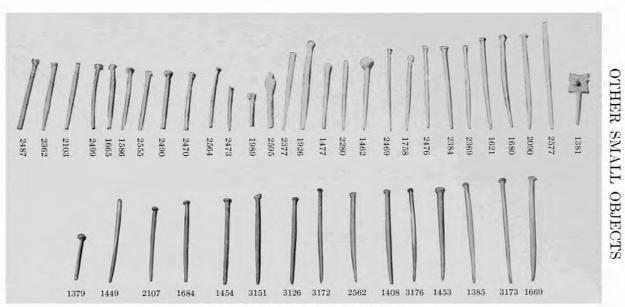


Fig. 99.—Bone Pins. Scale, 2:7

Field No.	Plot De	pth in Meters
1408-9	II	
1449	III	
1453	III	2
1454	III	
1462	IV	1
1472	IV	1.50
1477	IV	1.90
1478	IV	1.20
1567	V	1.50
1569	v	1.70
1586	v	2
	v	-
1621	VI	1.40
1665 1669	VI	1.60
	1.00	
1677	VI	2.60
1678	VI	2.50
1680	VI	2.10
1683	VI	Drawn St.
1684	VI	Rubbish
1687	1.0	Rubbish
1714	VI	
1758	VII	7
1769	VII	.90
1782	VII	
1785	VII	
1926	IX	Rubbish
1937	IX	1
1955	IX	Rubbish
1989	X	2.20
1999	X	2.80
2090	X Strat. Annex, NE.	2.72-2.89
2100	X Strat. Annex, trench	. 50-1
2103	X Strat. Annex, trench	1-1.50
2106-7	X Strat. Annex,	
	E. Wall, Pit 1	1-1.70
2168	XI	
2222-23	XII	2.70
2227	XII	2.70
2229	XII	Rubbish
2232	XII	3
2238	XII	3.50
2280	XIII	2
2333	XIV	2
2362	XIV	Rubbish, 4-4.50
2365.,,	XIV	3.50
		C MUT

Field No.	Plot	Depth in Meters
2369	XIV	4
2373	XIV	4
2377	XIV	4
2382	XIV	Rubbish, 4-4.50
2384	XIV	4.70
2386	XIV	4.70
2395	XIV	5.80
2467	XV	3.50
2469-70	XV	3.50
2473	XV	3.50
2474-75	XV	3.80
2476	$\mathbf{X}\mathbf{V}$	3.90
2487	XV	5.60
2490	XV	6.20



Fig. 100.—Ornaments of Bone. Scale, 1:2

2499	XV	5.50
2506	XV	6.40
2515	XV	4.80
2519	XV	5.80
2555	XVII	Rubbish, 1, 50-2
2562	XVII	2.70
2564	XVII	2.80
2565	XVII	
2576-77	XVIII	1
2594-95	XVIII	1.60
3126	XIII	Rubbish
3151	XV	
3172-73	XXVI	1.50
3176	XXVI	2

ORNAMENTS (Fig. 100)1

Field No.	Plot	Depth in Meters	Description
2329	XIV	1.90	Finger ring fragment, ornamented outside with two grooves parallel to the edges
1775	VII	050	Perforated fragment of a broad ring?
2706	XXII	1.50	Pendant(?), oblong with oval cross-section; grooves encircle the narrow end

 $^{^{\}rm 1}$ Cf. the perforated animal teeth and the perforated bones described on p. 124.

122

BOXES (Fig. 101)

Field No.	Plot 22	Depth in Meters	Description Undecorated fragment
2356	XIV	4.20	Fragment perforated near one edge; ornament- ed with zigzags in relief and with a row of circled dots
2489	XV	6.20	Complete ring, with two opposite perforations near one edge; ornamented with incised zig- zags. Slightly oval disk found with it was apparently bottom or lid
2856	XXV	1.20	Fragment

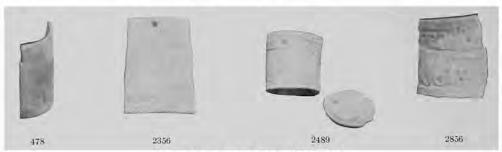


Fig. 101.—Bone Boxes. Scale, 3:5

TUBES (Fig. 102)

These are polished sections of the long bones of animals.

Field No.	Plot	Depth in Meters	Remarks
625	25		
755	29		
783	29		Handle for a drill?
860	11		Grooved lengthwise on two sides
1471	IV	1.30	
1555	V	1.40	
2162	XI		Blackened by fire; charred at each end
2512	XV	5	
2645	XIX	1.80	
2742	XXIII	1	

SLIPS (Fig. 103)

No. 2194 is wider at the center on its broad sides and wider at the ends on its narrow sides. Nos. 2075, 2114, 2194, 2211, and 2267 are perforated at each end. No. 2240 is ornamented with two circled dots.

Field No.	Plot	Depth in Meters
1476	IV	1.90
1718		

Fig. 103.—Bone Slips. Scale, 1:2

Field No.	Plot X Strat. Annex	Depth in Meters .6885
2075	X Strat. Annex, NW.	
2114	X Strat. Annex, trench	
2194-96	XII	1.20
2211	XII	1.60
2240	XII	2.80
2267	XIII	1.70
2385	XIV	4.70

PERFORATED ANIMAL TEETH (Fig. 104)

The fact that No. 2085 was found below the mandible of skeleton X_4 in the stratigraphic test plot indicates that such teeth served as pendent ornaments.

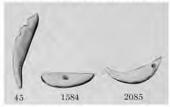


Fig. 104.—Perforated Animal Teeth. Scale, 1:2

Field No.		Plot	Depth in Meters	Remarks
45	3			Fragment
1584	V		Rubbish	
2085		. Annex, NE	. 2.38-2.55	

PERFORATED BONES (Fig. 105)

ANIMAL

The epiphysis of No. 1654 is cut to imitate a bird's head. No. 1363 and probably No. 1716 are vertebrae.

Field No.	Plot	Depth in Meters
1363	50/51	
1654	VI	.80
1688	VI	Rubbish
1716-17	VI	
1776	VII	050

HUMAN

Some of these are finger and toe bones. They were possibly used as ornaments, like the animal teeth described above. No. 2364 is the head of a femur.

Field No.	Plot	Depth in Meters
1895	IX	1-1.50
1939	IX	. 90

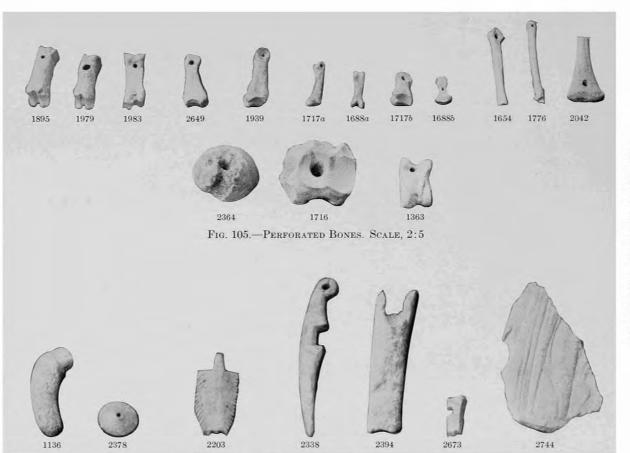


Fig. 106.—Miscellaneous Bone Objects. Scale, 1:2

Field No.	Plot	Depth in Meters
1979	X	Rubbish
1983	X	1.80
2042	X	
2364	XIV	3.50
2649	XIX	Rubbish, 1-2

MISCELLANEOUS (Fig. 106)

		TILLE CANADALE (
Field No.	Plot	Depth in Meters	Description Base of cut end highly polished
	43		
2203	ZII	1.40	Carved into leaf form; four small perforations
2338	XIV	2.20	
2378	XIV	4	Slightly conical polished top, rough base; per- forated
2394	XIV	5.80	
2673	XX	. 20	Ornamented with incised lines
2744	XXIII	1.20	Fragment of a carved plaque?

INDEX OF FIELD NUMBERS

Field No.	Pages	Field No.	Pages	Field No.	Pages
12	35-36	270			83–84
14	113	271		534	
41	111	273		535	
42	113	275		536	
45		285	113	538	108
56		288	105	555	
61		310	82	566	59
69	111	333	98	567	84-85
82		334	37	579	57
99	40, 42	337	94	581	83-84
102	113	338	108	584	98
116	98	339	40, 42	586	. 108
117	96	340	88	587	. 108
118	97-98	356	111	605	111
126		358	97-98	606	95-96
131	98	359	98	614	. 88
142		360	98	618	96
145	113	361	88	619	100
153	76	416	117-18	620	100
		418	88-89	621	100
173	90	421	109	622	
178		422	104	623	95-96
188	40, 42	425	58	625	122
		426	108	628	111
		427	1.1.4	629	112.6
208		428	98	630	108
213.	81	442	98-99	634	111
214		443	98	650	42
219	98-99	444	90	658	100
220 .	98	464		663	108
223.	104–5	468	108-9	664	111
224 .	56	471	82	668	100
225 .	82	472	83	669	98, 100
226 .	86	473	76	670	113
227	84-85	474	83	684	104-5
229 .	88	475	98	689	108
230 .		476		692	87
241.	98	477	75	695	108
246 .	98	478	122	704	88-89
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